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UMI
Canada and Continental Defence Co-operation:
From Ogdensburg to AWACS

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GUIDE TO ABBREVIATIONS

ABM: Anti-Ballistic Missile system
ADC: Air Defence Command (Canadian Forces)
AWACS: Airborne Warning and Control System
CONAD: Continental Air Defence Command (United States)
DCP No.1: Development Concept Paper Number one
DEA: Department of External Affairs
DEW Line: Distant Early Warning Line
DND: Department of National Defence
DRB: Defence Research Board
IMI: Improved Manned Interceptor
LRA: Long Range Aviation (Soviet Union)
MOT: Ministry of Transport
NORAD: North American Air Defence Command
OTH-B: Over-the-Horizon-Backscatter
PJBDB: Permanent Joint Board on Defence
RCAC: Royal Canadian Air Force
SAC: Strategic Air Command (United States)
SAF: Strategic Arms Limitation Talks
SCEAND: Standing Committee on External Affairs and National Defence, House of Commons
USAF: United States Air Force
CHAPTER ONE: Introduction
The aim of this study is to examine why the Canadian government decided to participate in projects proposed by the United States for the defence of the North American continent. Between 1936 and 1973, continental defence co-operation involved Canada and the United States in a series of continental defence projects, i.e., military activities undertaken jointly by the two countries in Canadian territory specifically for the defence of the continent. Because of the juxtaposition of the two countries on the same continent, Canada and the United States shared similar defence needs in that the successful defence of one country ensured the defence of the other from extra-continental threats. Continental defence projects were initiated by the United States because of its particular concerns and because of its assessments of the origins and credibility of external threats to the continent's security. Canada's participation in these projects cannot simply have been the result of total agreement between the two governments in their assessments of the objective external threat nor can it have been merely the outcome of the subjective collusion between the governing elites of the two countries. The Canadian government, i.e., the Prime Minister and his Cabinet Ministers who make the final decision on participation in a project, clearly differed with the American government on the extent and the credibility of the external threat and also disagreed on how to deal with the threat. Yet, despite the concern of the Canadian government that involvement in joint defence projects with the United States would adversely affect Canadian
sovereignty, i.e., the government's authority to make laws for
the territory under its jurisdiction, and despite the changes
in military technology and in the probability of attacks on
the continent between 1936 and 1973, Canada participated in a
series of continental defence projects ranging from the
construction of bases in the Canadian Arctic to the implementation
of an integrated air defence command. Therefore, this study
attempts to determine why the Canadian government agreed to
participate in defence projects it originally did not agree with.

I contend that the Canadian government's main
preoccupation when it was considering whether or not to
participate in an American proposed project was the avoidance
of a confrontation with the United States. The Canadian government
believed that to uphold steadfastly its objections to the
implementation of a defence project favoured by the United States
and to refuse to co-operate in that project might cause a
confrontation with the United States which only the latter
could win. The Canadian government feared that in any confrontation,
the United States could easily use its superior power to impel
the Canadian government to change its position on a project,
using economic retaliation for example. The Canadian government
was particularly concerned with the possibility that the United
States could simply ignore Canadian objections and undertake the
defence project in Canadian territory by itself, seriously
challenging Canadian sovereignty in the process. Whatever the
actual intentions of the United States may have been in each instance, our study of Canadian policy-making overtime shows that the Canadian government consistently considered the avoidance of a confrontation with the United States as more important than upholding Canada's basic objections to the project's implementation.

In its desire to avoid confrontations, the Canadian government adopted a set pattern of response when dealing with the American government. Although the Canadian government might have basic objections to the implementation of a new defence project under consideration by the American government, these were not communicated. If it appeared that the American government intended to implement a defence project proposed by the American military, the Canadian government would anticipate American expectations concerning Canadian participation in the project. The government would then seek to comply with these perceived American expectations even if it questioned the strategic assumptions on which the project was based and indeed had not receive formal requests from the American government for Canadian participation. Initial non-involvement, then compliance with anticipated expectations was, the Canadian government believed, the best way to avoid a confrontation with the United States. Besides, the Canadian government considered that its ready compliance with American expectations might place Canada in a better bargaining position to influence the manner in which the project would be implemented so that its sovereignty would be
protected while obtaining favourable cost-sharing agreements.

Generally, Canada could participate in a defence project in two different ways. Canada could participate passively in a project by allowing American troops to enter Canadian territory in order to undertake most of the activities related to the project's implementation. If the project involved the construction of a radar line in Canadian territory for example, the United States would undertake this project by itself, Canada supplying only the construction site. Or, Canada could participate actively by paying for and operating that part of the project which had to be in Canadian territory. Both ways of participating in projects had drawbacks for Canada. Passive participation implied the presence of American military personnel in Canadian territory, a presence which could have an erosive effect on Canadian sovereignty. Active participation required Canada to contribute substantial funds for the project's operation, a costly and often difficult task for a country of modest means. Thus, after having agreed to participate in a project in order to avoid a confrontation and after having weighed the drawbacks of the different manners of participation, the Canadian government negotiated forcefully with the American government so that the project would be implemented to its liking. With this approach, the Canadian government hoped to compensate for its hesitancy in indicating its objections when the American military first proposed the projects.

Therefore, a model of the Canadian government's decision-
making process in the consideration of Canadian participation in American proposed defence projects must include three parts. The first step in the decisionmaking process is the comparison between Canada's views on the validity of the proposed project and American expectations concerning Canadian participation in that project. At this point, there is no certainty that a defence project being proposed by the American military will be implemented by the American government. But, the Canadian government begins to assess the implications of the project while trying to perceive what the American government expects from Canada. The Canadian government may dispute the military value of the project but hesitates to indicate its unwillingness to participate in it because the government believes that the American government expects Canadian participation and would not tolerate Canada's refusal to do so. In short, conscious of the great power disparities between Canada and the United States, the Canadian government becomes more concerned with the necessity of maintaining friendly relations with the United States than with its desire to escape participation in a questionable defence project.

The Canadian government's desire not to provoke the American government's ire leads to the second step of Canadian decisionmaking where the Canadian government resigns itself to the fact that it will participate in the project despite its objections to it. The Canadian government does not necessarily give a formal indication to the American government that it has
abandoned its objections to the project nor does it suddenly decide that it must comply with American wishes. Rather, the Canadian government gradually accepts the fact that Canada will have to participate in the project in order to avoid a confrontation with the United States which it perceives likely if Canada refused to participate. Having avoided a confrontation on the basic issue of whether or not Canada would participate in the project, the Canadian government considers itself to be in a better position to indicate to the American government its objections to the project proposal. Thus in the third step, the Canadian government carefully chooses the manner in which it wants to participate in the project and negotiates in a resolute manner with the American government to minimize the effects of the project's implementation on Canada's sovereignty and on its economy. In short, this model of Canadian decision-making concerning defence projects covers the decision-making process from the time when the American military proposes a project to the time when the Canadian and American governments formally agree on how the project will be implemented.

The validity of this Canadian decision-making model can be tested in different time periods which allow us to control for changing external conditions and changing threat perceptions. Between 1936 and 1973, there have been many changes in the external factors affecting Canadian-American co-operation for continental defence such as the different sources of threats to North American security and the continuously increasing ability of
potential aggressors to attack the continent. The sources of external threats to the continent's security from 1936 to 1945 originated from Japan and Germany. With the end of the Second World War, the Soviet Union emerged as the most likely aggressor. However, the changes in military technology and the resulting improvement in the potential aggressor's ability to launch attacks against the North American continent had a more decisive effect on the nature of Canada's role in continental defence and on the kind of defence projects proposed than the changes in the sources of external threats. From 1936 to 1948, the North American continent's isolation from the sources of external threats due to the latter's lack of suitable long range weapons made large scale attacks against the continent very improbable. But, since there was always the possibility of small "hit and run" air and sea attacks, defence co-operation between Canada and the United States was necessary to guard against these attacks, although the project proposed at this time concerned only bases and provisions for exercises. In the next period, 1949 to 1957, the Soviet Union's acquisition of the atomic bomb and long range bombers with which to deliver these bombs meant that the potential aggressor could inflict severe damage on the industrial capacity and deterrent forces of the United States. The increased threat to continental security and the fact that the likely routes of the bomber attacks were over Canadian territory involved Canada in defence projects dealing specifically with the bomber threat. The following period, 1958 to
1973, presents totally different circumstances however since the importance of Canadian co-operation in continental defence has decreased even though the threat to the continent has become more dangerous with the development of the Intercontinental Ballistic Missile (ICBM). Since the United States has been able to have effective anti-ICBM defences without requiring Canadian participation, the Canadian government has not been faced with projects concerning anti-ICBM defence systems. Instead, the Canadian government is presently considering whether or not to participate in a defence project which does not deal directly with the main threat to continental security, the ICBM. Therefore, there is a whole range of changing circumstances in which the Canadian decisionmaking model can be thoroughly tested.

Thus, this study is composed of three main chapters, one for each of the three periods of different threat levels. In the presentation of the cases, I have relied, whenever possible, on the memoirs of Cabinet members and Cabinet documents rather than on public statements by government officials.

Chapter Two opens with a survey of the early history of Canadian-American defence co-operation. The examination of the Canadian government's attitude towards defence co-operation in the late 1930s and during the Second World War is a necessary prelude to the study of the focal point in this chapter, the February 12, 1947 Joint Declaration on Defence. This Declaration indicated Canada's acceptance of an American proposed defence project which required the presence of American troops in
Canadian territory and which implied Canadian agreement with the United States' appreciation of the Soviet threat to the continent. This chapter shows that even though the probability of large scale attacks against the continent was small and despite Canada's own perception of the threat, the Canadian government agreed to participate in the project in order to avoid a confrontation. This case will serve to establish the decisionmaking model.

Chapter Three examines the Canadian government's decision to participate in two projects for anti-bomber defences, the Distant Early Warning (DEW) radar line and the North American Air Defence Command (NORAD). The 1948 to 1957 period features many different circumstances compared with the previous period because of the increased credibility of the Soviet threat and because of new and costly technological developments. However, this chapter shows that the Canadian government's decision to participate in these projects was still based on its desire to avoid a confrontation with the United States.

Chapter Four concerns the current proposals for the modernization of the continental air defence system in the 1970s. At the time of writing, this project has not been implemented, the proposals of the American military still awaiting formal approval by the American government. However, the Canadian government's decisionmaking process up to now is studied in order to determine if the changes in military
technology and the reduced importance of Canada's role in continental defence have changed the Canadian government's attitude towards participation in joint defence projects. This chapter will in fact show that the Canadian government is still concerned about a confrontation with the United States and is accepting to participate in this project in order to avoid such a confrontation.

Therefore, our decisionmaking model will be tested in a whole range of changing circumstances in order to demonstrate that the Canadian government's decision to participate in continental defence projects resulted from a desire to avoid a confrontation with the United States. In the conclusion, the implications of a decisionmaking process based on the avoidance of confrontations will be discussed.
CHAPTER TWO: Origins of Defence Co-operation
In this chapter we will first examine the origins of defence co-operation to show the Canadian government's early attitude towards involvement with the United States in continental defence. We will then analyse in detail the Canadian decisionmaking process leading to a formal agreement on post-war co-operation with the United States, the February 12, 1947 Joint Declaration on Defence, at a time when the probability of attacks against the continent was small. American evaluations of the threat required a strengthening of fortifications in Canada, whether carried out directly by Canada or by the United States. We will show that the Canadian government disagreed with the American appreciation of threat and thus was not anxious either to undertake the fortification of its territory or allow the United States to do so. But, despite its different appreciation of the objective threat, the Canadian government modified its point of view and accepted the American government's interpretation in order to avoid a confrontation. Following its acceptance, Canada then tried to influence the manner in which the fortifications were to be undertaken. A three-step decisionmaking model will be established from this examination.

Origins of Defence Co-operation

In the late 1930s, President Franklin D. Roosevelt of the United States became increasingly concerned about the security of Canada because of his perception of the importance of Canadian territory for the security of the United States. The
President and his military advisers feared that an Asian or European power might attack Canada and use Canadian territory as a base from which to attack the United States. Thus, in a series of public speeches from 1936 on, the President indicated his concern for the security of the "good neighbour" to the North, Canada. On August 14, 1936, in a speech at Chautauqua, New York, President Roosevelt reaffirmed the United States government's determination to protect its "neighborhood", i.e., the Western hemisphere including Canada, against any aggressor. However, the American government believed that the task of protecting the "neighborhood" would be facilitated if the Canadian government actively helped the American military by giving information as to the extent of military preparations in Canada and by allowing American involvement in Canadian territory. Such involvement would necessitate the placing of American troops in key areas of Canada and the construction of a highway between the Canadian-American border and the Canadian-Alaskan border to supply Alaska in case of an attack.

The Canadian government was not interested in becoming too closely involved with the United States in defence matters, especially if it meant an American military presence in Canadian territory. The General Staff of the Canadian Army had warned the government in a memorandum that,

The building of a north and south highway through British Columbia and the Yukon would provide a strong military inducement to the United States to ignore our neutral rights in the event of a war between that country and Japan, a danger which we should do everything in our power to avoid.

1
The Canadian government heeded the General Staff's warning and refused to allow the construction of the Alaska Highway. The Canadian government simply did not want any foreign military presence in Canadian territory, whether the troops were from the United States or even from the Mother country, Britain. In 1938, the Canadian government refused to grant permission to the Royal Air Force to establish training bases in Canada, Prime Minister William Lyon Mackenzie King stating in the House of Commons that,

"Long ago, Canadian Governments finally settled the constitutional principle that in Canadian territory there could be no military establishments unless they were owned, maintained and controlled by the Canadian Government... Such domestic ownership, maintenance and control of all military stations and personnel is one of the really indispensable hall-marks of national sovereign self-government..." 2

Therefore, the Canadian government was unwilling to co-operate with the United States if such co-operation involved an American presence in Canada.

The American government accepted Canadian objections to American military involvement in Canada. Nevertheless, the American government persisted in trying to obtain some form of Canadian co-operation, if only for the exchange of military information. The United States Minister to Canada, encouraged by President Roosevelt, suggested to Prime Minister Mackenzie King

that informal discussions take place between the military officials of both countries. The Prime Minister agreed with this proposal, recognizing that some involvement with the United States would help to counterbalance British influence on Canada. 3

Once the two countries were exchanging information on mutual defence problems, President Roosevelt again took the initiative and expressed the United States’ commitment to Canadian security. In a speech delivered in Kingston, Ontario in August 1938, the President stated that the United States "...will not stand idly by if domination of Canadian soil is threatened by any other empire". A few days after the President's speech, Mackenzie King responded by expressing Canada's commitment to the security of the United States:

We, too, have our obligations as a good friendly neighbour, and one of these is to see that, at our own instance, our country is made as immune from attack or possible invasion as we can reasonably be expected to make it, and that, should the occasion ever arise, enemy forces should not be able to pursue their way either by land, sea or air to the United States across Canadian territory. 5

The Canadian government recognized that an aggressor could use Canadian territory to launch attacks on the United States and thus acknowledged its responsibility to prevent such a possibility. Therefore, with these expressions of commitment to each other's security, the basis for continued Canadian-American co-operation for continental defence was established.

3 R.F. Swanson, "The United States as a National Security Threat to Canada", _Behind the Headlines_, vol. 29, nos. 5-6, July 1970, p. 9.
5 Idem.
With the Second World War, the two countries became even more concerned with their collective security and in the early stages of the war, they established the Permanent Joint Board on Defence (PJBD) through which they could better discuss mutual defence problems. During a meeting between Mackenzie King and President Roosevelt at Ogdensburg, New York on the 17 and 18 of August 1940, it was announced that the PJBD would be composed of military officers and one civilian chairman from each country and would make recommendations for mutual actions to the President and the Prime Minister. Through the PJBD, the American government renewed its requests for American installations in Canadian territory such as airfields and the construction of the Alaska Highway. The American representatives on the PJBD discussed,

...each problem vigourously and impatiently, and in terms of the short-term military need, with only secondary consideration to long-term aspects or to the concurrent impact on other conditions in Canada.

But it was precisely the long-term effects of an American military presence on Canadian territory which preoccupied the Canadian government such that it was still reluctant to allow such a presence. However, with the international situation worsening because of Japan's attack on Pearl Harbour and the United States' entry into the war, the Canadian government recognized that American bases on Canadian territory were

necessary for the war effort. The construction of the Alaska Highway and airfields was allowed by the Canadian government. Also, American military units were allowed into Canada and took positions in the bases allocated to them. Nevertheless, the Canadian government was very careful not to lease the bases allocated to the United States on a long-term basis, stipulating in the leasing agreements the early return of these bases to Canadian ownership at the end of the war. Therefore, despite the immediacy of the war, the Canadian government was still uneasy about an American military presence on Canadian territory and the danger it posed for Canadian sovereignty. Mackenzie King demonstrated his concern on December 30, 1942 when he told his Cabinet that,

Efforts would be made by the Americans to control developments in our country after the war and to bring Canada out of the orbit of the British Commonwealth of Nations into their own orbit. 8

Therefore, while recognizing the necessity of co-operating with the United States for continental defence, the Canadian government was very uneasy about any military activity in Canada which required an American military presence.

Post-war Co-operation

With the end of the Second World War, the Soviet Union emerged as a potential aggressor. Because of the relative proximity

of the Soviet Union to Canada over the polar route, Canadian territory, especially in the Arctic regions, became even more important for the security of the United States. By October 1946, the American government, through diplomatic and military channels, was giving precise indications of the type of installations it wanted in Canadian territory and the nature of joint military activities that should be undertaken to the Canadian government. The United States wanted the construction of weather stations in the Canadian Arctic, the continued use of airfields allocated to it during the war and provisions for American training exercises in Canadian territory. The Canadian government recognized that participation in such activities would require not only a continued American military presence in Canada but also the acceptance of the United States' appreciation of the threat posed by the Soviet Union. Conscious of the difficult decisions it might have to make after the war concerning continued defence co-operation, the Canadian government began to consider its post-war defence needs compared to American expectations of Canadian participation in post-war co-operation before the war ended. Thus the first step of the Canadian government's decision-making process began during the war.

The problems which the Canadian government would face when it would have to consider how to participate in continental defence after the war were outlined by Major General Maurice Pope.

Chairman of the Canadian Joint Staff Mission in Washington and a Canadian representative on the PJBD. In a letter to Colonel J.H. Jenkins in 1944, General Pope stated that if relations between the United States and the Soviet Union became strained after the war,

...(Canada's) position would be a difficult one. To the Americans the defence of the United States is continental defence, which includes us, and nothing that I can think of will ever drive that idea out of their heads. Should, then, the United States go to war with Russia they would look to us to make common cause with them and, as I judge their public opinion, they would brook no delay...

General Pope went on to say that if the United States and the Soviet Union did indeed become antagonists, Canada would have to,

...provide adequate forces, not so much as to defend ourselves against possible raids from the enemy (though this would be necessary), but more to ensure that there was no apprehension as to our security in the American public mind. As I used to hold ten years ago when I was in Operations, what we have to fear is more a lack of confidence in the United States as to our security, rather than enemy action.

General Pope indicated that in the event of Soviet-American antagonism, Canada would be in a difficult position to refuse co-operating with the United States in any defence project they might propose to improve continental defences. The Soviet Union could threaten continental security by launching attacks through the Canadian Arctic to capture northern airfields from which to launch air attacks on the United States. The difficulties caused by the Arctic terrain and climate, supply problems and the Soviet Union's lack of long-range aircraft, not to mention its strained

resources due to the war, made the threat of a large scale Soviet attack through the Arctic only a hypothetical one. But as General Pope pointed out, Canada would have to be co-operative with the United States really to reassure the Americans rather than to deal with an immediate threat.

General Pope's letter was studied by the Working Committee on Post-hostilities Problems established by the Cabinet and composed of representatives from the Departments of External Affairs and National Defence. This committee had been established in 1943 to study the post-war international situation and Canada's role in international politics. Among the problems considered by the committee was post-war defence co-operation with the United States. Using the assessments of General Pope and other governmental and military officials, the Working Committee prepared a preliminary report on post-war co-operation in May 1944. This preliminary report indicated that the Canadian government might have only two options to chose from:

(a) Respond to United States pressure for large scale defences in the north (which the USSR might regard as offensive measures) and incur the risk of Soviet hostility, or

(b) Refuse to incur that risk and be faced with the demand that if we will not take the necessary steps ourselves we must give United States forces a free hand. 12

Both options had important disadvantages for the Canadian


government. Option (a) implied that the Canadian government would have to adopt exactly the same evaluation of the Soviet threat as the United States as well as undertake expensive fortifications it might not consider necessary. Option (b) involved the acceptance by the Canadian government of an American military presence in Canada after the war. In the late stages of the war and immediately after however, the Canadian government had neither the same degree of concern as the American over the Soviet threat nor the willingness to allow an American military presence in Canadian territory after the war.

First of all, the basic concern of the Canadian government in the latter stages of the war was the withdrawal of American military personnel from bases and installations on Canadian territory as soon as the war was over. Having allocated bases to the United States because of the demands of the war effort, the Canadian government was impatient to get rid of the American presence due to,

...a feeling that United States military commanders in Canada had been rather insensitive to the niceties of Canadian sovereignty and in a few cases had come close to regarding Canada as occupied territory. 13

However, the government was also concerned that the wartime American presence would influence Canada's ability to formulate post-war policies. While the Working Committee on Post-Hostilities Problems prepared its report, it was pointed out that,

...it was essential that the granting of facilities under the special circumstances of this war should not be used as a precedent for future action in time of peace, if Canadian neutrality were not to be prejudiced. 14
Having already had a military presence on Canadian territory during the war, the American government might be very reluctant to leave its bases in northern Canada if these were considered vital for the defence of the United States, giving to the Canadian government little choice but to agree to this continued presence. On February 17, 1944, the Prime Minister stated to Vincent Massey, the Canadian High Commissioner in Britain, his apprehensions concerning,

"...the process of disentanglement which must follow the war when the Americans must withdraw and leave us in full control of our own bases and their wartime installations. The PM showed he had grave doubts as to whether international agreements on which Canada had secured from the United States provided any practical guarantee against the United States' claims and pretensions."

Mackenzie King was in fact questioning the willingness of the United States to recognize the strictly temporary nature of its occupation of bases on Canadian territory as stipulated in the leasing agreements. With such concern about the continuation of the American presence in Canada after the war, the Canadian government was determined that the process of disentanglement at the end of the war be carried out as far as possible. As a result, when the war ended, the Canadian government undertook the purchase of all American installations in Canada not covered in leasing agreements and all the roads and airfields built by the

13 R.J. Sutherland, p. 262.
16 For example, the Alaska Highway, though built entirely by the United States, was to revert to full Canadian ownership not later than six month's after the war.
United States during the war in order to have clear title to all installations operated by the United States during the war. In short, the Canadian government's unwillingness to have an American military presence on Canadian soil after the war was clearly demonstrated by the government's determination to remove that presence at the end of the war.

In the second place, the Canadian government was not ready to build up its northern defences in response to the United States' perception of the threat when it disagreed with the American appreciation of the threat and wanted to act according to its particular appreciation of the Soviet threat. The Canadian government had recognized in the late stages of the war that the Soviet Union might become the most likely post-war aggressor. However, the government was not ready to consider the Soviet Union as an immediate threat. The revelation in September 1945 of the existence of a large-scale Soviet spying in Canada was a great shock for the Canadian government. Mackenzie King was angered by the revelation and became more concerned about the possibility of Soviet aggression. But, the Canadian government did not want to abruptly break off its relations with the Soviet Union, adopting a cautious approach instead of forcing a confrontation. In March 1946, Mackenzie King wrote in his diary that he had indicated to the House of Commons,

17 Col. S. W. Dzuiban, p. 329.
...every confidence in the Russian people and my own determination not to allow what had been disclosed to affect the relations of the two countries, but rather be made the instrument for drawing us closer together. That course alone will save the world. An opposite course, one of antagonism and fight, would very soon provoke an appalling situation. 19

Mackenzie King believed that if Canada and its allies acted rashly and antagonized the Soviet Union, the results would inevitably be bad. Therefore, while Mackenzie King believed that the Soviet Union could threaten Canadian security, he did not want Canada to act in a way which would provoke the Soviets.

Furthermore, the Canadian government had the impression that the Soviet Union had no intention of threatening continental security. One observer has pointed out the calmness of the Canadian government compared with the American government when considering the tensions between the Soviet Union and its wartime allies, stating,

But whereas the Canadian policy community remained calm, the American policy community was galvanized into something close to panic. 20

The reason for the Canadian government's calm was that it assessed the Soviet threat differently, perceiving no immediate danger of Soviet attacks against the continent. In a 1946 study by the Department of External Affairs, it was stated that,

There have been no indications of undue Soviet interest in North America and politically, therefore, it may be judged that there is an absence of evidence to show the development of any aggressive designs on the part of the Soviet Union against this continent. 21

The Canadian government did not believe that the Soviet Union
posed a direct threat to continental security, especially when considering Soviet capabilities to launch attacks in the immediate post-war period. As the Working Committee on Post-
Hostilities Problems pointed out in 1944,

Even if tensions were to become acute between the USSR and the US, the problems of recovery and development in the USSR are so great that the possibility of warfare between these two Great Powers during the next decade is extremely remote. 22

The American military disagreed with this assessment, but the Canadian government had been alerted to the fact that this was due to the particular interests of the American military. General Pope reported in 1944 that the American military would not admit that the possibility of war with the Soviet Union in the next decade was remote because of fear that such an admission would end its hope of maintaining the military establishment at a high level of personnel after the war. In fact, there is evidence that the American military sought to hold exercises in Canadian territory to spend surplus funds in the military budgets so as to avoid having Congressmen justify cuts in the American defence budget because of these surpluses. Therefore, the Canadian government was facing a situation where the American

20 James Bayrs, p. 335.
military privately admitted that a Soviet attack was unlikely in the near future but still insisted on Canadian participation in the strengthening of defences in the northern regions of the continent.

The insistence of the American military on Canadian participation was evident in the discussions of the PJBD on joint Canadian-American planning to meet the Soviet threat. The PJBD, through its Canada-United States Planning Committee, prepared a recommendation on post-war co-operation which was to outline how the two countries should view the threat and how they should deal with it. The American representatives on the PJBD had to a large extent persuaded their Canadian counterparts to accept their view of the threat. But the Canadian government was not happy with the way the PJBD was discussing post-war co-operation. On behalf of the Cabinet, its secretary, A.D.P. Heeney, indicated to the Undersecretary of State for External Affairs that,

The Board's proposal go far beyond a working paper for the instruction of joint planners. They take the form of a basic security pact and contain a number of fundamental military obligations. We had expected something quite different...

However, the American representatives continued to press their case and in a preliminary report on April 29, 1946, the PJBD called for the retention of most of the bases and installations in the Canadian north such as airfields, including the one at

25 Memorandum, "A.D.P. Heeney to Norman Robertson", February 1, 1946, Department of External Affairs files, cited in James Eyre, p. 344.
Goose Bay, Labrador, as well as the construction of weather stations. The acceptance of these proposals by the Canadian government involved either an increase in Canadian defence expenditures or the allowance of a continued American military presence in Canadian territory.

It was at this time when precise proposals began to be communicated that the Canadian government undertook the second step of its decision-making process, the recognition that the basic project proposal of the United States would have to be accepted in order to avoid a confrontation. On May 9, 1946, while studying the PJBD's proposals, Prime Minister Mackenzie King told his Cabinet colleagues that,

...I believed the long range policy of the Americans was to absorb Canada. They would seek to get this hemisphere as completely one as possible. They are already in one way or another building up military strength in the North of Canada. It was inevitable that for their own protection, they would have to do that. We should not shut our eyes to the fact that this was going on consciously as part of the American policy. It might be inevitable for us to have to submit to it—being so few in numbers and no longer able to look to British power for protection.

Thus, the Canadian government realized that because of the great power disparities between Canada and the United States and because Britain, weakened by the war, no longer provided an effective counterbalance to American influences on Canada, it could not confront the United States with an outright refusal to participate in the proposed project without risking

26 Labrador and Newfoundland were not part of Canada at this time, but Canada had assumed the responsibility for the defence of Newfoundland during the war.
a situation where the United States would simply ignore Canadian sovereignty and do whatever it considered necessary in Canadian territory despite Canadian objections. Mackenzie King recognized that Canada did not have the power to prevent the United States from taking over parts of Canada and thus could not afford to provoke a confrontation which might cause the United States to enter Canada in order to ensure its defence. As a result, on May 9, the Canadian government accepted some of the PJRD's proposals, notably the provision for continued American use of Goose Bay as an airbase. The government did not give complete approval to the PJRD's proposals however, Mackenzie King pointing out that the British government had not been sufficiently consulted with concerning the appreciation of the threat. The Canadian government still disagreed with the American appreciation of the threat and the provision of bases and weather stations in the Canadian North which it implied. But, it is obvious from Mackenzie King's May 9 statement that the Canadian government was conscious of the possibility of a confrontation with the United States on the nature of post-war defence co-operation and had no desire of provoking such a confrontation. Therefore, the Canadian government realized that it would have to accept the basic American proposals for continued co-operation but undertook the third step of its decision-making process where it attempted to influence the implementation of

30 "Memorandum by Hume Wrong (Assistant Undersecretary, External Affairs)", May 10, 1946, Department of External Affairs files, cited in James Bayes, p. 353.
the defence project to its liking.

In a memorandum to the Prime Minister a month after
the May 9 Cabinet meeting, Arnold Heeney, the Cabinet's Secretary,
indicated that,

...the Government will probably have to accept the US
thesis in general terms, though we may be able to
moderate the pace at which plans are to be implemented
and to some extent the nature of the projects which
are to be undertaken... 32

Based on this assessment, the government instructed the Canadian
Ambassador in Washington, Lester B. Pearson, to explain to the
American government why the Canadian government hesitated to
totally approve the PJB's proposals. The Canadian Ambassador
subsequently expressed the hope to the American government that,

...the War Department would not press us too hard with
urgent requests for quick action in the field of defence
in the North. I said that, while developments in the north
were perhaps relatively small items in the defence plans
in this country, they were for us matters of great
importance, strategically and politically. 33

Indeed, the Canadian government was so concerned about an
American military presence in Canada that on June 20, 1946,
some Cabinet Ministers actually proposed a scheme whereby
Canada would exchange some of its Arctic islands for American
territory so that American troops on these islands would not
officially be in Canadian territory. Therefore, the government
was still dissatisfied with the threat appreciation worked out
by the PJB when the latter presented its formal recommendation

32 "Memorandum for the Prime Minister", June 12, 1946, Department of
33 "Letter, L.B. Pearson to Norman Robertson", June 21, 1946, Department
on post-war co-operation for Cabinet approval in November 1946. The government did not agree with the extent of the American military presence and of the installations that would have to be provided as proposed by the PJBD and was concerned that Canada could not adequately present its objections to the American government through the PJBD. During the Cabinet meeting considering the PJBD's proposal, Brooke Claxton, who became Minister of National Defence shortly afterwards, suggested that, in view of the American government's interest in the project,

Shouldn't our reply to the President therefore be that while we agree emphatically that there should be joint planning on the basis of an appreciation to be agreed to by the political representatives of the two countries, we feel that the best way to proceed would be to have the discussion at the political level at once and then to give instructions to the Chiefs of Staff and the Joint Planners? 35

In other words, Brooke Claxton wanted the two governments to reach agreement on a common appreciation of the threat and then direct the activities of the military instead of having the military representatives on the PJBD work out an appreciation without the governments being able to clarify each other's views. On November 14, 1946, the Cabinet agreed with Claxton's suggestion and, while accepting the general outline of the PJBD's recommendation, insisted on discussions on a governmental level before considering the matter any further.

On December 16 and 17, 1946, American government

35 Claxton Papers, cited in James Eyres, p. 343.
36 James Eyres, p. 343.
representatives met their Canadian counterparts in Ottawa. In presenting their case, the American representatives indicated that the American government did not want as many installations as earlier suggested through the PJBD. As the Minister of National Defence reported to the Prime Minister after the meetings,

The suggestions raised by the United States officials do not go nearly as far as those anticipated in the reports previously made to the Cabinet. These suggestions would add little to defence expenditure. Further, they would fit in with any plans ultimately adopted and would assist in the development of the north for civilian as well as for military purposes. 37

Thus, by delaying its approval of the PJBD's recommendation, by indicating its objections to the proposals it contained and by insisting on more direct discussions between the two governments, the Canadian government had succeeded in modifying the way in which the project was to be implemented so as to minimize the costs for Canada and the American military presence. The American government had recognized that the Canadian government was concerned about the implications of the PJBD's proposals for Canadian sovereignty and agreed to change the proposals, to the disappointment of some American military officials. As a result, the Canadian government approved the modified recommendation of the PJBD such that the American government still obtained Canadian agreement with its appreciation of the Soviet threat and on the need for some

installations in the Canadian North despite Canada’s earlier desire to avoid such commitments. But, the Canadian government had also obtained an important concession from the American government, the ability to limit the extent of joint military activities in Canadian territory in order to protect Canadian sovereignty. The Joint Declaration on Defence Co-operation of February 12, 1947 which publicly announced Canadian-American agreement on the nature of post-war co-operation listed the areas of co-operation as being the interchange of military personnel for familiarization, provisions for joint military exercises, the standardization of weapons and equipment and the mutual availability of military installations, with the provision that these activities would not impair national sovereignty. With this Declaration, the Canadian government had succeeded in making post-war co-operation more acceptable to Canada while providing a level of co-operation which satisfied the United States.

Therefore, by 1947, the Canadian government was participating in a defence project which involved the presence of American military personnel on Canadian territory to man installations and to participate in exercises and which implied Canadian agreement with the American appreciation of the Soviet threat to the continent, two things the government had wanted to avoid when it began its decisionmaking process.

39 S.W. Dzuiban, p. 338.
The Canadian government did succeed in influencing the American government on the manner in which the project was implemented. But, the fact remains that Canada became involved in a defence project it originally did not agree with. This change in position was due to the Canadian government's fear of a confrontation with the United States, a fear which became the dominant influence on the government's decision-making on post-war co-operation. When the Canadian government began to consider its post-war defence needs and the expectations of the American government concerning Canadian co-operation, the government observed that its views of post-war co-operation did not agree with those of the United States. The Canadian government wanted a return to the pre-war situation where each country recognized its commitment to the security of the other but avoided joint military activities, especially Canada which was always concerned about the erosive effects of an American military presence on Canadian sovereignty. But, the American military, supported by the American government, did not want to return to the pre-war situation because it considered the continuation of the American military presence in Canada after the war as necessary to deal with the emergence of the Soviet Union as a potential aggressor. The United States expected from Canada a more co-operative attitude than it in fact possessed. Therefore, the Canadian government believed that because of the great power disparities between the two countries, it could not confront the United States with its determination to limit its involvement with
the United States in defence matters. In order to avoid a confrontation, the Canadian government decided to comply with the American point of view and participate in the proposed project. The government hoped that with the danger of a confrontation removed and with the United States satisfied that Canada would indeed participate in the project as it had expected, it would be in a better bargaining position to influence the implementation of the project and shape it more to its liking.

Thus, the examination of this case has shown that the Canadian government's decisionmaking process concerning this project took three steps, first, the comparison between Canadian views on a project and American expectations, second, compliance with the basic American expectations in order to avoid a confrontation, and third, the modification of the project's implementation. This three step process forms a convenient decisionmaking model which will be used in the examination of later cases to demonstrate that the Canadian government maintained this decisionmaking model based on the avoidance of a confrontation despite changing external conditions and military technology.
CHAPTER THREE: Specialization in Air Defence
This chapter deals with the period between 1948 and 1957 when the ability of the Soviet Union to launch large scale attacks against the continent increased substantially with the development of long range strategic bombers. Under changed strategic conditions, we will examine the Canadian government's decisionmaking process concerning Canadian participation in two projects undertaken specifically to deal with the new bomber threat, the construction of the Distant Early Warning (DEW) radar line and the establishment of an integrated air defence command, the North American Air Defence Command (NORAD). This examination will show that despite changes in strategic conditions and in Canadian political leadership, the Canadian government maintained the same decisionmaking pattern as in the previous case, disagreeing with the need for the project but complying with American expectations of Canadian participation in order to avoid a confrontation.

Before examining the decisionmaking process concerning the two projects, the nature of the threat in this period will be discussed. In the immediate post-war period, a Soviet air attack against the North American continent was not considered likely because the Soviet Union did not have strategic bombers with sufficient range to reach the continent from bases in the Soviet Union. However, in August 1947, the Soviet Union exhibited the first production models of a new four-engined bomber, the Tupolev TU-4. The TU-4 was in fact a carbon copy of the American
B-29 strategic bomber of World War Two. Having copied B-29s which had crash-landed in its territory during the war, the Soviet Union acquired not only a bomber which had sufficient range, about 3,000 miles, to reach North America on one-way "suicide" missions from Soviet bases, but also an airframe from which to develop more advanced long range bombers. Therefore, once the Soviet Union successfully tested its first atomic bomb in August 1949 and began the production of atomic bombs, it acquired the capability to launch devastating attacks on the industrial cities of the United States. Since the Soviet bombers would surely take the shortest routes possible to reach targets in the industrial regions of the United States in order to have sufficient range, attacking bombers would most likely fly over Canadian territory which was directly between the Soviet Union and the United States on the north-south axis.

As a result of the bomber threat, the Canadian government became increasingly concerned about its air defences and took steps to strengthen its interceptor force with the CF-100 and F-86 fighters. The Canadian government also studied the possibility of constructing a radar line in the northern regions of Canada but found that the construction costs were prohibitive and that the necessary technological developments

had not been completed. In the late 1940s however, the United States decided to build its own radar line along the Canadian-American border on the forty-ninth parallel, but in American territory and with no real intention of involving Canada in its construction. But since the Canadian government was interested in having some radar protection for Canadian territory and realized that the continuation of the American line eastward from Lake Superior would provide radar coverage to the industrial regions of Ontario and Quebec, the government sought to participate in this radar line. As a result, Canada and the United States agreed in August 1951 to jointly build the radar line, known as the Pinetree Line, with the United States paying two-thirds of the construction costs. The Pinetree Line consisted of radars to detect incoming bombers and electronic equipment which could guide the fighters in the interception of the bombers such that it offered a complete air defence system which protected the more populous regions of the continent. Nevertheless, proposals were already being made in 1951 for an addition to this system.

The DEW Line

Some elements of the American governmental and military establishments believed that the construction of an early warning radar line as far north of the United States as possible was

necessary in order to alert American forces as soon as possible of an incoming Soviet attack. In the early 1950s, new technological developments in the field of radar and the four-fold increase of the American defence budget due to the Korean War encouraged the supporters of the early warning line to seek American government approval for the project. Scientific studies sponsored by the American government and the United States Air Force (USAF) examined the feasibility of constructing a Distant Early Warning (DEW) Line and these studies, notably the Lincoln Summer Study Group in 1952 and 1953, came out in favour of the DEW Line concept. Nevertheless, the American government was still undecided whether or not to build up its continental air defence forces and reduce its defences in other areas in order to pay for air defence. Even the USAF could not decide if it should support the DEW Line even though it would benefit the most from it. The main uses of the DEW Line would be to warn the Strategic Air Command (SAC) bases of an attack so that the SAC bombers, the main deterrent force of the United States, would avoid destruction on the ground and then warn the air defence forces to prepare to intercept the bombers.

But, the USAF feared that too much emphasis on defensive measures might reduce the funds for SAC itself so that its support for the DEW Line and air defences was not always strong. However, when the Soviet Union successfully tested its first hydrogen

bomb in August 1953, the American government decided to go ahead with the strengthening of continental air defences. After approving the DEW Line concept in October 1953, the American government sought Canadian participation in this project since the ideal sites for the radar line was in the Canadian Arctic. (see Appendix A) However, the Canadian government had already examined the implications of the DEW Line before the American government requested its participation.

In the examination of the Canadian government's decisionmaking concerning participation in the DEW Line project, our decisionmaking model induced from events in the immediate post-war period will now be re-applied. In the first step of its decisionmaking process, the Canadian government compared its views on the need for the DEW Line compared with American expectations of Canadian participation. The Canadian government did not believe that the DEW Line's usefulness was sufficient enough to justify the costs of building such a radar line in the Canadian Arctic. On March 10, 1953, the Minister of National Defence, Brooke Claxton, met the American Secretary of Defence and his associates and told them that the Canadian government was, "...by no means persuaded that the proposed additional screen would add sufficiently to our defence to justify the expenditure of money and manpower." The Canadian government's

6 S.P. Huntington, p. 328.
lack of enthusiasm for the DEW Line project was due to scepticism over the project's military value and concern that Canada would have to pay the line's high construction costs. Even after the American government had decided to go ahead with the DEW Line concept, the Canadian government voiced its doubts about the line's merits. Brooke Claxton told the House of Commons in November 1953 that one drawback of the DEW Line was the fact that while it could give warning of an attack, it could not track the bombers between its radar coverage and that of the Pinetree Line to the south such that it could not verify if the attack was a real one or a "spoofing" raid designed to unnecessarily alert the air defences and the civilian population. Furthermore, it was pointed out that since the TU-4s were slow and vulnerable, the Soviet bombers would probably avoid flying over land where they could be detected by the DEW and Pinetree Lines and reach their targets flying off the coasts of the continent.

But, the Canadian government was particularly concerned with the possibility that Canada would have to pay for the DEW Line. Because of transportation difficulties and construction problems caused by the permafrost in the high Arctic, Canadian defence planners had indicated that the construction of an early warning line "would cost more than it was worth."

Furthermore, the construction of a line like the DEW Line was

10 R.J. Sutherland, p. 268.
expected to be only a short term emergency measure to deal with the sudden nuclear parity between the Soviet Union and the United States. Since the main threat to Western security was still considered to be Soviet aggression in Europe, the Canadian government did not want to embark in a temporary project which would divert funds away from Canada's commitments in Europe as a member of the North Atlantic Treaty Organization (NATO). Besides, in the early 1950s, Canada already faced large defence expenditures because of these NATO commitments as well as its participation in the Korean War, defence expenditures having risen from 2.7% of G.N.P. in 1950 to 7.6% of G.N.P. in 1953. Therefore, the Canadian government believed that it could not afford to pay for the DEW Line's construction.

However, in assessing American expectations concerning Canadian participation in the DEW Line, the Canadian government had the impression that the United States would not only insist that Canada had to allow the construction of the DEW Line in its territory, but would also expect Canada to bear most if not all of the construction costs involved. In 1951 and 1952, the American press, apparently encouraged by American government officials, had often criticized the Canadian government's

11 For example, General A.D.L. McNaughton, Chairman of the Canadian section of the FJBD, negotiated construction arrangements with American officials in 1954 with the view that the DEW Line would be used only for a short period of time to deal with the emergency caused by nuclear parity, see J. Swettenham, McNaughton, 1944-1966. (Toronto: Ryerson Press, 1969), p. 193.
hesitancy in contributing large sums of money for the defence of the Western allies' defence. The criticism of the American press was often used by the Opposition in the House of Commons and by the Canadian press to bolster their own criticism of the government's defence effort, thus adding to the government's embarrassment. Therefore, when a series of American magazine articles in the summer of 1953 pointed out the deficiencies of the existing air defence system, notably the lack of an early warning line, the Canadian government was suspicious of the American government's role in this campaign to publicize air defence. The Minister of National Defence, Brooke Claxton, believed that the American government was using the magazine articles to pressure the Canadian government into accepting to undertake the DEW Line project by placing the "...responsibility for the alleged defencelessness of New York and Chicago on our failure to make adequate provision." The magazine articles were really attempts by the advocates of air defence to win the support of the American government for strengthened continental air defences. But, Claxton believed that it was actually the American government which was using these articles to create the impression in the American press, and indirectly in the Canadian press and among Opposition members, that Canada was not willing to participate in an important defence project, placing Canada

16 S.P. Huntington, p. 336.
in an embarrassing position if it refused to participate. Claxton warned the Prime Minister that if the United States expected Canadian participation and continued to indirectly pressure Canada while the Canadian government maintained its opposition to the project, a serious confrontation could develop.

It may not be too much to say that the line of action that may be taken may prove to constitute the most serious setback to [the] work [of Canada and the United States] together for joint security since the end of the Second World War, and bring about a situation which might, to some extent at least, endanger the extraordinarily harmonious relations which have existed between Canada and the United States. 17

Faced with the possibility of a confrontation, the Canadian government re-examined its position on participation in the DEW Line project.

At this point, the Canadian government undertook the second step of its decision-making process where it realized that it should put aside its objections and comply with the basic American expectations of Canadian participation in order to avoid a confrontation. The American government had not made any formal request for Canadian participation because it had not made a definite decision whether or not to proceed with the DEW Line. In fact, it is only on October 6, 1953 that the American government agreed to strengthen air defences, although the DEW Line proposal was still under study. But, the Canadian government was under the impression that the United States would indeed request Canadian participation in the DEW Line, the American

18 S.P. Huntington, p. 328.
government having requested Canadian permission to test some DEW Line equipment in the Canadian Arctic in January 1953.

With the American government giving every indication that it expected Canadian participation and apparently using indirect pressure to make sure that the Canadian government agreed with its views, the Minister of National Defence came to the conclusion that Canada would have to comply with American expectations or else risk a confrontation from which it would likely emerge a loser. Claxton, shortly before the American government's October 6 decision to strengthen air defences, wrote in a memorandum that,

The Canadian Government may or may not be convinced, when United States projects are proposed, that they are reasonably necessary when weighed against global strategic factors and political obligations overseas; as well as against the possibility of air attacks taking new forms in the next decade. However, it may be very difficult indeed for the Canadian government to reject any major defence proposal which the United States Government presents with conviction as essential for the security of North America.

Claxton recognized that if the United States considered the DEW Line essential for its defence, it had the power to ignore Canadian objections to the project and undertake the line's construction in Canadian territory without Canadian government permission, thereby challenging Canadian sovereignty. Even if such extreme measures were not taken, American antagonism would leave Canada in an uncomfortable position. Therefore, Claxton implied that the Canadian government would have to comply with the basic

19 James Eayrs, p.362.
American expectation of Canadian participation in the DEW Line because the risks of a confrontation were too great for Canada. The Canadian government did not have to make a definite decision to participate in the DEW Line at this time because the American government had not yet formally requested such participation. But, the Minister of National Defence and the Prime Minister, who trusted Claxton views on defence matters, were now of the opinion that Canada would have to participate in the DEW Line project and thus entered the third decisionmaking step where they would seek to influence American plans for the implementation of the project.

Having reached the conclusion that Canada would have to participate in the DEW Line, the Canadian government now had to decide how it would participate. Canada could participate actively in the project by paying most or all of the construction and operation costs of the DEW Line or participate passively by letting the United States construct and operate the line by itself. Since the Canadian government still questioned the military value of the DEW Line and wanted to avoid its high construction costs, active participation was ruled out. Thus, the Canadian government favoured passive participation where it would simply allow the United States to build the line in its territory. However, passive participation had two drawbacks. First of all, it implied an increased American military presence in Canada to carry out the Line's construction.
as well as its operation. Secondly, and more important, passive participation where the United States was left to pay the whole costs of the DEW Line could be politically embarrassing for the Canadian government at a time when the Canadian and American press were criticizing Canada for being stingy in its contribution to defence and when the American government was apparently using magazine articles to indicate that it expected Canada to contribute to air defence. Despite these drawbacks, the Canadian government took measures to minimize the effects of these drawbacks on its ability to participate in the manner it desired.

The first task of the government was to minimize the stigma which might be attached to its will to contribute to continental defence as a result of its desire to avoid paying for the DEW Line. When the Joint Military Study Group composed of Canadian and American military officers proposed in early October that another warning line be constructed between the DEW and Pinetree Lines (see Appendix A) to fill in the radar gaps between the two Lines, the Minister of National Defence seized the opportunity to show that Canada was indeed willing to contribute to continental defence. Claxton reasoned that if Canada constructed the additional warning line, known as the McGill Fence or Mid-Canada Line, by itself, it would be less likely to be accused by the press and by the American government of being stingy, even if it still succeeded to avoid paying for the DEW Line. Claxton
told the Prime Minister in a memorandum dated October 21, 1953
that,

Our taking the initiative with regard to the McGill Fence would put us in a better position to say, "Well, we think we have done what we thought was necessary for continental defence. If you want to go on and do more, we are not going to stand in the way," and keep our self-respect without having to put out too great an expenditure of materials, man-power and money.

Indeed, for Canada, the McGill Fence had many advantages over the DEW Line since it was cheaper to build and operate, the costs being almost exactly half of those for the DEW Line, was based on Canadian developed and produced electronic equipment, and was probably of more value because it would alert the defences of the Pinetree Line that the bombers were indeed pursuing their raid instead of making "spoofing" raids. In this way, the McGill Fence would be of more direct benefit to Canada's air defence than the DEW Line which was above all designed to alert the United States' SAC bombers. Nevertheless, the fact remains that the Canadian government was willing to pay for the McGill Fence for political rather than military reasons, a fact suspected by the then Chief of the Canadian General Staff and later defence critic, Lieutenant-General Guy Simonds. Having approved plans for feasibility studies of the McGill Fence in November based on Claxton's suggestion, the

22 Memorandum, Brooke Claxton to L. St. Laurent, October 21, 1953, Claxton papers, cited in James Bayrs, p. 370.
23 The costs for these lines vary with the sources consulted and the items included in the figures. The costs for the McGill Fence should be considered to be around $200 to $250 million while those of the DEW Line are from $450 to $600 million.
24 The McGill Fence was really an electronic fence and used equipment slightly different from radar equipment.
26 James Bayrs, p. 370.
Canadian government was now apparently satisfied that its initiative on the McGill Fence would demonstrate that it was not attempting to escape making contributions to continental defence.

The Canadian government now took measures to ensure itself that the increased American military presence in Canada necessitated by the DEW Line's construction and operation would not have an adverse effect on Canadian sovereignty. Negotiations between the Canadian and American governments on the implementation of the DEW Line project took place in the PJBD. Through these negotiations, the Canadian government sought not only to confirm the arrangement whereby the United States would pay the whole costs of the DEW Line but also to establish Canada's sovereignty over the land used. The negotiations stretched over a long period of time, the Canadian and American governments announcing their joint intention to go ahead with the DEW Line only on November 19, 1954. The guiding principles on the implementation of the project were agreed to only on May 5, 1955. Through an exchange of diplomatic notes, the American government agreed to a whole series of provisions including the recognition that all land used for the project remained under Canadian title, that all construction plans be available for Canadian inspection, that all construction and operating costs would be the United States' responsibility and that as much as possible, Canadian contractors and equipment be used. The

Opposition in the House of Commons and the Canadian press were not convinced that this agreement was sufficient to protect Canadian sovereignty from American encroachment. But as one observer later pointed out, speaking of the agreement, ...Canada secured what the United States had up to that time assiduously endeavoured to avoid, namely an explicit recognition of Canadian claims to the exercise of sovereignty in the Far North. 29

In short, the Canadian government had succeeded in correcting to its satisfaction one of the drawbacks of its decision to participate passively in the DEW Line project, the possible threat to its sovereignty.

Therefore, in dealing with the DEW Line proposal, the Canadian government adopted the same decision-making pattern as in the case of post-war co-operation. The Canadian government had precise reasons for avoiding participation in the DEW Line. But, due to its perception of American expectations and because of its fear of a confrontation with the United States, the government came to the conclusion that it had to participate in the project despite its objections to it, hoping to persuade the United States to accept the manner in which the government wanted to participate in the project. In short, despite the different nature of the proposed project and despite the changed strategic conditions, the Canadian government's decision-making process concerning defence projects was still based on the avoidance of a confrontation with the United States.

29 R.J. Sutherland, p. 270.
But, it should be noted that the Canadian government anticipated the American government's decision to proceed with the DEW Line and decided to comply with American expectations even though it had not received a formal request for Canadian participation and relied only on its perception of the American government's attitude. By taking such a submissive approach, it was conceivable that the Canadian government would overcompensate and accept involvement in a project it did not agree with even though the American government did not then actively seek Canadian participation. Such was the case with the establishment of an integrated air defence command, the North American Air Defence Command (NORAD).

NORAD

The Battle of Britain in 1940 had demonstrated the effectiveness of centralized operational control of interceptor forces in dealing with large scale bomber attacks and the officers of the Royal Canadian Air Force (RCAF) and the USAF were very interested in the possibility of having.

A distinction must be made between operational control where a commander marshalls forces of different countries and the control in the sense of command over these forces. Otherwise, this may lead to confusion over the real meaning of the NORAD agreement. For example, Melvin Conant states that with NORAD, "...it was understood fully in Ottawa and Washington that the control of the continental air defense systems had passed to the United States and the decisions for utilizing assigned forces, wherever located, would not be made in Canada." ("Canada and Continental Defense: An American View", International Journal, Summer 1960, vol. 15, no. 3, p. 225). Statements such as these appear to imply that Canada lost complete authority over its air defence forces. In fact, Canada retained national command over Canadian forces in NORAD and allocated its forces to an operational commander who happens to be in the United States.
a centralized operational control of continental interceptor forces. The military argued that the speed of the new jet-powered Soviet bombers introduced into service in 1954 and 1955 necessitated an air defence system which could react quickly to an attack and provide efficient operational control of the interceptor forces. As far as the military was concerned, the existing system where each country was responsible for the air defence of its airspace with little provision for reinforcements from the other country being made could not provide the efficiency required to deal with a surprise attack. The American Joint Chiefs of Staff were particularly concerned for the security of SAC bases at this time due to a Rand Corporation study which warned that these bases might be vulnerable to surprise attacks by 1956, and hoped that a centralized operational control system would be established at about the time the DEW Line would be completed, that is, 1957. The Canadian military shared the concern of the American Joint Chiefs and as a result, a Joint Military Study Group was established to study the integrated command structure required. In December 1956, the Chiefs of Staff of both Canada and the United States approved the recommendations of the Study Group for the establishment of an integrated air defence command and subsequently sought the approval of their respective governments.

33 General Charles Foulkes, p.113.
Therefore, at the beginning of 1957, the Canadian government had to decide whether or not to participate in an integrated air defence command.

In the first decisionmaking step concerning this project, the Canadian government examined the implications of an integrated air defence command. Cabinet documents are not available for this period but the attitude of the Canadian government towards participation in integrated commands during and after the Second World War indicates that the government could not have been enthusiastic about participating in an integrated air defence command. During the war, the Canadian government sought to assert its authority over Canadian troops which were assigned to British units and with the end of the war, the Canadian government was not interested in having the United States assume Britain's colonial authority over Canadian forces. As one observer has pointed out,

Canada had emerged from the war as a strong middle power, had divested itself of all facets of a military command by the United Kingdom, and was not in any mood to accept any aspect of military command under the postwar collaboration with the United States. 34

After the war, the Canadian government did agree to discuss provisions for the operational control of Canadian-American forces in an emergency such that if American troops entered Canada to join Canadian troops defending a position, they would be under the operational control of Canadian commanders, and if Canadian troops entered the United States, the reverse would 34 General Charles Foulkes, p. 110.
These provisions were basically the same as those agreed to during the war when the Canadian government had bargained in a determined fashion through the PJBD to assert Canadian operational control over American forces in Canadian territory. But before the troops could be placed under the operational control of one commander, a time-consuming consultation process had to take place between the Canadian and American governments.

It was precisely this slow consultation process which made the air force officers dissatisfied with the existing arrangements for operational control. The military believed that in the event of a surprise attack, there would be no time for the governments to consult and agree on centralized operational control of their interceptor forces such that the attack would not be intercepted as quickly and as efficiently as possible. To avoid such a situation, the military in effect proposed operational control of Canadian and American interceptor forces during peacetime so that little time would be lost in co-ordinating the interceptors once there was an emergency. Having established its desire to avoid American operational control over Canadian forces at any other time except for a real emergency, the Canadian government could not have been enthusiastic about a proposal which implied continuous American operational control of Canadian interceptors during peacetime. Since the United States had larger air defence forces than Canada, it was obvious that an integrated command would have

an American officer as central commander. Furthermore, peacetime operational control of Canadian-American interceptor forces implied that American interceptors could be assigned to intercept unidentified aircraft in Canadian airspace instead of Canadian interceptors or that Canadian forces could be ordered by the American commander to intercept an attack before fully consulting with the Canadian government, two events which could adversely affect Canadian sovereignty. Thus, the Canadian government objected to the political implications of an integrated air defence command while recognizing the strictly military benefits, a fact the Minister of National Defence, Ralph Campney, emphasized when he stated in the House of Commons that Air Marshal C.R. Sleson of the RCAF did not indicate government policy when he stated in June 1955 that an integrated command was inevitable. The Liberal government of Louis St Laurent was particularly concerned that the proposed integrated command would not be popular with the Opposition and the Canadian press. While peacetime operational control of Canadian forces in NATO was acceptable to Canadian elite opinion because of its multilateral nature, the government did not expect such approval for bilateral operational control of Canadian-American

36 House of Commons Debates. June 6,1955,1955 session, vol.4, p.4346-4347. John Warnock uses a 1951 Department of External Affairs statement which said that "the United States and Canadian portions of the radar system will be linked together to form a single organization." (Partner to Behemoth. (Toronto: New Press, 1970), p.118), to support his contention that the Canadian government was interested in participating in an integrated command long before 1957. In fact, the statement obviously refers to the extension of the Pinetree Line into Canada to make a continuous radar system through both countries such that Warnock's contention is doubtful.
forces since Canadian elite opinion believed that only with multilateral arrangements could small powers be certain that powerful states would not impose their views on where and when their forces would be used. Indeed, the Canadian government was so uncertain of elite opinion reaction to a bilateral integrated command that it postponed its consideration of the proposal until after the June 1957 federal election.

While trying to anticipate the reaction of Canadian elite opinion to the integrated command proposal, the Canadian government also had to examine American expectations concerning Canadian participation in the project. It was clear that the American military wanted Canada to participate in the integrated command and that their arguments were supported by the Canadian military. But, the American government did not indicate clearly what it expected of Canada. In January 1955, an American Congressman, Sterling Cole, who supported the strengthening of continental air defences, suggested to the American Secretary of Defense, Charles Wilson, that an integrated command be proposed to the Canadian government. Secretary Wilson did not agree with this suggestion, stating that it was "...unnecessary and politically inexpedient to raise the subject with the Canadians at this time." Two years later when the Chiefs of Staff were requesting formal approval of their proposal, the

37 The desire of Canadian elite opinion for multilateral operational control was clearly demonstrated in 1958 during the debate in Parliament over the NORAD agreement when the Opposition insisted that NORAD should be under NATO control rather than simply a Canadian-American affair. See McLin, p. 54-59.
38 McLin, p. 42.
American government was still careful not to pressure the Canadian government into accepting the integrated command proposal. For example, the Secretary of Defense waited until his Canadian counterpart had indicated tentative Canadian acceptance of the military's proposal before deciding to approve it in the name of the American government. Thus, while the American military was expecting Canadian participation, the American government recognized Canada's concern for its sovereignty and was ready to accept the decision of the Canadian government, whatever it might be.

Shortly after the Chiefs of Staff approval of the Study Group's proposal in December 1956, the Canadian government entered the second phase of its decisionmaking process where it decided to participate in a peacetime bilateral integrated command despite its dislike of such arrangements. However, governmental approval was given in two stages since the Liberal government of Louis St Laurent was replaced by the Progressive Conservative government of John Diefenbaker in June 1957 in the middle of the decisionmaking process. In the first stage, the Liberal Minister of National Defence, Ralph Campney, decided on February 18, 1957 to support the military's proposal and planned to recommend full Cabinet approval. But, the Liberal Cabinet postponed its consideration of the proposal until after the general election. The second stage finds the Conservative Minister of National Defence, George

Pearkes, also supporting the integrated command proposal but succeeding in obtaining the Prime Minister's approval of the proposal. Thus, despite the changes in political leadership, the Canadian government accepted the military's proposal, although not without recommending some changes to the original proposal. For example, Ralph Campney requested that a Canadian officer be assigned as deputy to the Commander in Chief of NORAD (CINC NORAD), if only for political reasons, and emphasized that the United States should recognize "...the need for adequate consultation with the Canadian authorities on matters which might lead to the alerting of the air defence system." In short, even while giving its approval to the proposal, the Canadian government was still uneasy about its implications. The fact that the Canadian government decided to participate in an integrated command despite its misgivings about such a command arrangement can only be attributed to its fear of a confrontation with the United States.

Indeed, the attitude of government officials was one of uncertainty about the reaction of the American government to Canada's decision on NORAD. As in the DEW Line case and the decision in the immediate post-war period to continue co-operating with the United States, the Canadian government believed that it could not confront the United States with its desire to avoid participating in a project it was not enthusiastic about. Even if it was only the American military which was pressing

41 Statement by Prime Minister Diefenbaker, p.1061.
for Canadian participation, the Canadian government believed that both the American government and military would be antagonized if Canada refused to participate in the integrated command and that such antagonism could cause a confrontation from which Canada could only emerge the loser. The fear of a confrontation with the United States is evident in a statement by the Minister of National Defence, George Pearkes, justifying the government’s approval of the proposal for an integrated command. Speaking of American proposed defence projects in general, Pearkes stated that,

> If we refuse to do anything, why, then, the United States would say they had to do it and they would just move in here and we would not be a partner, we would just be little more than a servant of the United States. 42

Thus, according to Pearkes, the Canadian government had no alternative but to participate in the integrated command because the United States could easily ignore Canadian sovereignty and undertake defence projects in Canadian territory if the Canadian government refused to co-operate. But in fact, Pearkes and Prime Minister Diefenbaker, who had quickly approved the command proposal because of fear that Canada would be embarrassed if it did not give its approval once the United States did, were misinterpreting American expectations, believing that the United States would "move" into Canada if

42 Testimony of George Pearkes, Minutes of Proceedings and Evidence, Standing Committee on External Affairs, Senate, June 25, 1958, p. 16.

43 Testimony of General Charles Foulkes, Minutes of Proceedings and Evidence, Special Committee on Defence, House of Commons, no. 15, October 22, 1963, p. 510.
it did not agree to participate in the project when the American government was apparently ready to accept Canada's decision, whatever it might be. The Canadian government apparently did not make a distinction between a purely military proposal like the one for an integrated command and a formal and urgent request from the American government for Canadian participation. The former is really a suggestion while the latter is practically a demand. However, as a result of its confusion, the Canadian government accepted a military proposal for an integrated command it did not really want in order to avoid a confrontation with the American government, even though the latter had not formally requested Canadian participation.

Having decided to participate in the integrated air defence command, the Canadian government undertook the third step of its decision-making process where it sought to obtain American guarantees that Canadian sovereignty would be well protected. Agreement between the Canadian and American governments on the implementation of the North American Air Defence Command was indicated through an exchange of diplomatic notes on May 12, 1958. Through this agreement, the American government agreed to the eleven guiding principles for the operation of NORAD established by the Canadian note. These principles indicated the duties of CINC NORAD and his Canadian deputy, the channels through which the governments would be consulted and the matters which would require governmental consultation.

According to one observer, the Canadian government had to bargain with determination in order to obtain American government assurances that the need for consultations between the two governments in emergencies would not be treated lightly. This fact demonstrates not only the customary success of the Canadian government in influencing the manner in which the project was implemented but also the continued uneasiness of the Canadian government with the integrated command project. In short, it is obvious that the Canadian government agreed to an integrated command because it believed it had no choice.

Therefore, the examination of the Canadian government's decisionmaking process on NORAD has shown that while the nature of the proposed project was different from that of the DEW Line case, the decision of the Canadian government was still based on the avoidance of a confrontation with the United States. While the DEW Line required a formal decision by the American government before it could be constructed, NORAD involved a military proposal such that the Canadian government had to make a decision concerning a military suggestion which is certainly different from an American government request for Canadian participation in a project considered essential for continental defence. But apparently, the Canadian government did not make a distinction between the different kinds of proposals such that it considered the refusal to accept the American military's proposal as risky as denying an American government request for Canadian participation. Constantly
fearful of a confrontation with the United States, the Canadian government did not correctly perceive American expectations, believing that the United States would take over Canada's defence if it refused to participate in the integrated command when in fact the American government had no intention of punishing Canada for such a refusal. As a result, the Canadian government accepted a military proposal for which it lacked enthusiasm and which could have been easily rejected without causing a confrontation. Indeed, the Canadian government could have made a counter-proposal, suggesting better co-ordination of air defence forces without having to establish an integrated command. But instead, the Canadian government preferred to totally accept the military's proposal and try to obtain guarantees that it would be consulted in emergencies, with no certainty that these guarantees would be of great value.

In conclusion therefore, it is clear that despite the increased probability of attacks against the continent due to the Soviet Union's acquisition of strategic bombers, the Canadian government, in deciding whether or not to participate in defence projects designed to deal with the new bomber threat, was more concerned with the avoidance of a confrontation with the United States than with the military value of the proposed projects. The Canadian government had doubts about the military value of the DEW Line and had

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particular reasons for wanting to avoid participating in both the DEW Line and NORAD such as concern for its sovereignty. Nevertheless, Canada participated in both projects. The Canadian government's decision to participate in the projects was based on its assessment of American expectations concerning Canadian participation from which it obtained the impression that the United States would not tolerate Canada's refusal to participate and would either retaliate or take over Canada's defence, ignoring Canadian sovereignty. In effect, the Canadian government was more concerned with the American threat to Canada's well-being which might result from a confrontation than with external threats to continental security. As one Canadian observer has pointed out,

"Canadians know the United States is not the enemy, but their defence arrangements are determined more with Washington in mind than Moscow or Peking." 46

But in fact, the Canadian government incorrectly assessed American expectations so that the government would believe a confrontation inevitable unless it complied with the proposals when in reality the threat of a confrontation was not so great. In the DEW Line case, the Minister of National Defence believed the American government was using a press campaign to pressure the Canadian government while in the NORAD case, the government attached too much importance to a military proposal. Relying on its perceptions and trying to anticipate American expectations

instead of basing its judgement on the diplomatic requests from the American government, the Canadian government misjudged the American government's expectations, perceiving them as more demanding of Canada than they actually were. As a result, the Canadian government would too readily resign itself to the fact that it would have to agree to participate in the proposed project when there was still an opportunity to indicate objections to the project and avoid participating in it without causing a confrontation. Thus, despite objections to a project, the Canadian government would consider it necessary to participate in the project in the belief that no major American proposal could be refused, even if such proposals were only military suggestions. The following chapter will show that the Canadian government still has this attitude in the 1970s.
CHAPTER FOUR: Canada and Air Defence Modernization
This chapter examines Canadian decisionmaking in the late 1960s and early 1970s concerning Canadian participation in the proposed modernization of continental air defences in the 1970s. At the time of writing, the American government has not decided whether or not to implement the project as proposed by the American military nor has it formally requested Canadian participation. However, Canadian decisionmaking up to this time will be examined in order to show that the Canadian government is adopting the same approach in deciding whether or not to participate in air defence modernization as it did in the previous cases. That is, the Canadian government is still preoccupied with the avoidance of a confrontation with the United States such that it is willing to participate in this project despite its objections to it and despite the changed circumstances. Indeed, it could be expected that the changed circumstances would have changed the Canadian government's attitude towards joint defence projects. For example, while the Soviet Union's ability to attack the continent has substantially increased because of the development of the Intercontinental Ballistic Missile (ICBM), the significance of Canada's contribution to continental security has diminished. With the ICBM having supplanted the bomber as the main threat, the importance of anti-bomber defences such as NORAD has been reduced. Also, the United States' ability to have effective anti-ICBM defences without requiring emplacement on Canadian territory has reduced the importance of Canadian participation in continental
defence. Furthermore, the changes in Canadian political leadership, notably the accession of Prime Minister Pierre Elliott Trudeau who initiated a review of Canadian foreign and defence policies in the late 1960s, could have changed the Canadian government's attitude towards co-operation with the United States. But, this chapter will show that the Canadian government's decisionmaking on continental defence projects is still based on the avoidance of a confrontation with the United States such that the government resigns itself too readily to the fact that it has to participate in air defence modernization.

The reasons why the American military is proposing such modernization of air defences and the types of radars and weapons involved in the new system should be explained at the outset. Despite the emergence of the ICBM as the main threat to the continent, the American military, especially those concerned with air defence, insist that anti-bomber defences must be maintained. The Soviet Union has retained its Long Range Aviation (LRA) with its force of "Bear" and "Bison" bombers developed during the 1950s such that the military argues

1 At the present time, Canada's only contribution to anti-ICBM defences is a special camera at Cold Lake, Alberta and providing communication links between some of the Ballistic Missile Early Warning System (BM-EWS) sites and NORAD Headquarters in Colorado. Major systems such as BM-EWS and ABM (Anti-Ballistic Missile) do not operate in Canadian territory nor is there any indications that the United States sought Canadian participation in them. See Testimony of Dr. G. R. Lindsey, Minutes of Proceedings and Evidence, Standing Committee on External Affairs and National Defence, House of Commons, May 21, 1969, p. 1615. Also, Mitchell Sharp, Secretary of State for External Affairs, "Canada-U.S. Relations: Options for the Future", International Perspectives, August 1972, p. 4.
that this bomber threat must still be countered, whatever its importance. As one observer has pointed out, "The United States has a military planning axiom of countering as many threats as can be retailed convincingly." The concern of the American military has increased in the early 1970s because of the apparent intention of the Soviet Union to develop a new supersonic bomber, code-named "Backfire", in order to counterbalance possible limitations on the number of ICBMs agreed to in the Strategic Arms Limitation Talks (SALT) between the United States and the Soviet Union. It is arguable whether or not the Soviet bombers really pose any serious threat to continental security. It is very unlikely that bombers would spearhead a Soviet ICBM attack because of their vulnerability and because they would probably be detected before reaching their targets, thereby ruining the surprise element of the ICBM attack. As a result, bombers might be used only after the main attack, if they escape destruction by the American retaliatory attack. In any case, the credibility of the Soviet bomber threat is debatable.

However, the American military has not only argued for the maintenance of the existing anti-bomber defences, but has also suggested the modernization of the air defence system. In November 1967, the USAF's Aerospace Defense Command, the

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4 C. S. Gray, p. 30.
American partner of the Canadian Forces Air Defence Command in NORAD, prepared a study on air defence modernization, the Development Concept Paper No. 1 (DCP No. 1). The aim of DCP No. 1 was to suggest a new air defence system which would be more effective in detecting and intercepting low-flying bombers and which would be less vulnerable to nuclear attacks than the existing system of DEW and Pinetree Lines. DCP No. 1 therefore suggested four new weapons systems to provide an effective and less vulnerable air defence system.

The first proposed new system is the Over-the-Horizon-Backscatter (OTH-B) radar. The OTH-B radar emits high-frequency signals which bounce between the ionosphere and the earth such that a bomber would be detected by the signals it would bounce back. Unlike conventional radar, OTH-B would be able to detect low-flying bombers and detect the bombers flying higher at greater distances. (See Appendix B) The ideal use of OTH-B would be as an early warning system. Three sites would be used, one each on the eastern and western coasts of the United States and one in the Arctic regions of Canada to detect bombers using the Polar route. The OTH-B sites would be vulnerable to ICBM attacks, but their destruction would offer another kind of warning of an impending attack.

The second proposed system, the Airborne Warning and Control System (AWACS), would be less vulnerable to an ICBM 5 The Mid-Canada Line was phased out of operation in 1965.
attack. AWACS consists of modified Boeing 707 jet transports, designated Boeing E-3As, carrying a special revolving radar which, in addition to the capabilities of ordinary radars, has a look-down capability with which a low-flying aircraft could be detected despite the "ground clutter", i.e., the interference caused by the topography. Furthermore, the AWACS aircraft (See Appendix C) would carry computers and other electronic equipment which would feed information to the interceptors to guide them to their targets. In effect, AWACS would be a flying Pinetree Line which could detect bombers and control the interceptors but with the added advantages of being able to detect low-flying bombers and being less vulnerable to ICBM attacks. Theoretically, OTH-B would alert the AWACS aircraft to take off and take their positions in the air. But, some AWACS aircraft might have to be on constant airborne alert to provide quick reaction in an attack or guard against surprise attacks. AWACS aircraft might also have to operate over Canadian territory in order to detect and direct the interception of bombers as far north of their targets in the United States as possible.

The last two systems involve air defence weapons. The Improved Manned Interceptor (IMI) involves the development of a new supersonic interceptor with electronic equipment having a "look-down, shoot-down" capability, i.e., electronic equipment which would be compatible with the AWACS equipment for the interception of low flying bombers. The IMI could be
an improved version of either the USAF's F-15 or the U.S. Navy's F-14 air superiority fighters now being developed. The fourth project is the Surface-to-Air-Missile-development (SAM-D) which would be a point defence missile that would not necessarily be tied to the OTH-B, AWACS, IMI system so that it is of little importance for this study. As the list of systems proposed demonstrate, the American military is proposing a substantial modification of the existing air defence system.

By 1973, the American government had still not made a definite decision whether or not to implement the proposed modernization of air defences. However, the American government has allowed the American military to continue studies on modernization and on the possibilities of implementing the new air defence system in the late 1970s. The American Joint Chiefs of Staff have approved the USAF's proposals and the American Defense Department is preparing a definitive modernization plan. Furthermore, the proposed projects are in advanced stages of development. The OTH-B radar equipment is presently being tested, particularly in the Arctic regions.

6 For more detailed information on OTH-B, AWACS, IMI, see Testimony of Dr. G. R. Lindsey, Defence Research Board, Minutes of Proceedings and Evidence, Standing Committee on External Affairs and National Defence, House of Commons, May 13, 1969, p. 1466-1474. See also C. S. Gray, p. 74-83, also Major General W. K. Carr, "Toward a Modernized North American Air Defence System", Canadian Defence Quarterly, vol. 2, no. 4, Spring 1973, p. 9-17. The revolving radar of AWACS has been successfully tested and the special equipment for the IMI has already been developed, a similar system already in use in the F-14. Only OTH-B's effectiveness in the Arctic area is still in doubt at the time of writing such that there is no great technological difficulty, except for OTH-B, which would prevent the implementation of the project.

7 Cecil Brownlow, p. 12.
where the ionosphere is prone to disturbances by sun spots and
the Aurora Borealis which could reduce OTH-B's efficiency. The
OTH-B tests in the Arctic are being carried out in Canadian
territory (See Appendix A) under a joint program of the Defence
Research Board (DRB) of Canada and the USAF. However, only the
United States has been involved in the development of electronic
equipment for OTH-B and AWACS. For the development of AWACS
alone, $194 million of the American defence budget for fiscal
1973 has been allocated with another $209.5 million, including
eleven million for the purchase of two prototypes, being
proposed for fiscal 1974. Final Congressional approval of the
AWACS program is not certain, but many proposals to cut funds
for the program in Fiscal 1974 have not been approved by the
Senate such that it may be assumed that the program will have
final governmental approval unless conditions change. As for
the IMI, the American military has not decided which aircraft,
the F-15 or F-14, to develop as the IMI. These projects may be
of questionable value, but because of "bureaucratic-technological
inertia", as one observer describes it, these projects will
likely receive final approval by 1976.

Because of its continuing participation in NORAD and
in continental defence in general and because OTH-B, AWACS and

8 See "Announcement by Defence Research Board", Department of
9 "USAF Continues Prototype Stress", Aviation Week & Space
10 K. Johnson, "Senate Restores Full Funding For Two Major Weapons
Systems", Aviation Week and Space Technology, vol. 99, no. 25,
December 17, 1973, p. 25.
11 C. S. Gray, p. 76.
IMI could be more effective if used on and over Canadian territory, Canada has become involved in the consideration of a modernized air defence system, but only in an indirect way up to now. Indeed, up to June 1973, there has been no formal discussions on air defence modernization between the Canadian and American governments through the Permanent Joint Board on Defence. The PJBOD is still the main forum of discussions on defence co-operation between the two governments and the lack of discussions indicate that the American government has not yet made any formal requests for Canadian participation in the new program. But while the two governments have not held discussions, the Canadian and American military have exchanged views on the program because of their partnership in NORAD. As a result, the Canadian military has expressed the same concern as its American counterpart for the maintenance and modernization of anti-bomber defences and is already preparing plans for the project's implementation. Faced with strong military support for the modernization proposals and with the possibility of American governmental approval for the project, the Canadian government has already begun to consider whether or not Canada

12 Interview with Mr. A.P. Sherwood, Secretary, Canadian Section, Permanent Joint Board on Defence; Director, North American Section, Defence Relations Division, Bureau of Defence and Arms Control, Department of External Affairs, Interviewed in June 1973.


14 For example, in preliminary studies for the replacement of the CF-101B and CF-104 jet fighters in the late 1970s, one of the requirements is compatibility with AWACS. "CAF Wants CF-101 Replacement delivered by End of Decade", Canadian Aviation, January 1973, p. 22.
will participate in air defence modernization.

As the first step of its decisionmaking, the Canadian government has already assessed the implications of the modernization proposals for Canada. As a result of this assessment, the Canadian government is not enthusiastic about Canadian participation in the modernized air defence system, a position which was clearly stated in the 1971 White Paper on defence policy, *Defence in the 70s*. *Defence in the 70s* was the result of the review of Canadian foreign and defence policies initiated by Prime Minister Trudeau in 1968. The White Paper identified the four Canadian defence priorities in the 1970s:

(a) the surveillance of Canadian territory for the protection of Canadian sovereignty, (b) continental defence co-operation with the United States, (c) the fulfilment of NATO commitments, and (d) the performance of peacekeeping duties. However, while continental defence was the second priority, the position of the Canadian government is that the existing co-operation for anti-bomber defence can continue but that there is no need for Canada to become involved in any new project in anti-bomber defence. The pertinent paragraph in *Defence in the 70s* states that,

The Canadian Government is not therefore prepared to devote substantial sums to new equipment or facilities for use only for active anti-bomber defences in the future. Over the last decade the anti-bomber defences available to NORAD have been substantially reduced as a result of changes in the threat. Unless the strategic situation changes, the Government intends to update its contribution to the active anti-bomber defences of North America only to the extent that this is required for the general control of Canadian airspace.
There are three reasons why the Canadian government is not interested in the air defence modernization program. The first reason is simply the fact that the Canadian government, while recognizing that the American nuclear deterrent must be protected, does not believe that Soviet bombers pose a serious threat to that deterrent force. *Defence in the 70s* clearly states that, "The time has passed, however, when a full, active anti-bomber defence is essential for the protection of the U.S. deterrent capability." The Canadian government does not share the American military's arguments that the bomber threat must be countered more effectively despite its secondary importance compared to the ICBM threat, such that it would like to avoid contributing substantial funds to a new and elaborate anti-bomber system it does not consider necessary.

The second reason for the Canadian government's unwillingness to participate in the new system is the government's concern about American encroachment on Canadian sovereignty. The Canadian government could participate in the modernized air defence system in two different ways. The Canadian government could allow the United States to operate the different elements of the system such as AWACS and OTH-E in Canadian territory in the same way that the United States was allowed to build and operate the DEW Line in Canada. Or, the

16 *Defence in the 70s*, p.30.
17 *Defence in the 70s*, p.29.
Canadian government could insist that the part of the system which would have to operate on or over Canadian territory, such as OTH-B sites in the Arctic and AWACS overflights, should be operated by Canada. As in the DEW Line case, both the active and the passive manners of participation have important drawbacks for Canada, the former implying high expenditures while the latter involved a significant American military presence in Canadian territory. Unlike the DEW Line case however, passive participation would be the least acceptable choice to the Canadian government because of greater concern for the protection of Canadian sovereignty, as demonstrated by the priority given to the protection of sovereignty in Defence in the 70s. The Canadian government would like to limit as much as possible the extent of an American military presence in Canadian territory, having specified that "...to the greatest extent feasible, defence activities on Canadian territory will be carried out by members of the Canadian Armed Forces." Besides, the operation of AWACS in Canadian airspace by the United States could pose a serious challenge to Canada's control of its airspace. As one observer has pointed out with regards to AWACS, it would be intolerable for United States aircraft to be given the freedom of Canada's airspace in peacetime. The United States Government would then be better informed of activities on and over Canadian territory than would Ottawa.  

Thus, because of the problems which passive participation could create for Canadian sovereignty, active participation would be

18 Defence in the 70s, p.30.
19 C.S. Gray, p.156.
more acceptable. However, if Canada operated the system, the Canadian government would have to reassign many Armed Forces members to new tasks and might have to purchase and operate expensive equipment such as AWACS aircraft and IMIs to replace the CF-101B interceptors now in use. Even if favourable cost-sharing agreements were obtained, the costs for Canada would still be high such that Canada would expend substantial funds to, in reality, protect its sovereignty from American encroachment. In short, participation in the new air defence system would require the Canadian government to make difficult decisions where it would have to consider the drawbacks of the different manners of participation and choose the one which were the most acceptable to it. Therefore, the Canadian government could not be very enthusiastic about a project which involved so many threats to Canadian sovereignty and so many difficulties for the government.

The third reason for the Canadian government’s unwillingness to participate in the modernized air defence system is the availability of a Canadian airspace surveillance system which could meet the requirements of airspace control as established by the first defence priority, the protection of sovereignty without requiring the use of AWACS and OTH-B. At the

20 For example, the costs for the purchase of one AWACS aircraft would be about $63 million if 42 are built. C.S. Gray. The price of an F-14 or F-15 is about $15 million. Furthermore, the operating costs of AWACS would be very high such that probably no more than three would be on airborne alert at the same time. 21 The estimated costs of Canada’s contribution to NORAD are $139 million for 1970-71 (down from a high of $163 million in 1958-59.) C.S. Gray, Appendix I. It can be assumed that Canada’s contribution to a modernized air defence system would be higher than these amounts at least in the first years of operation.
present time, the Canadian airspace surveillance system is a composite of two systems. First, there is the aircraft control system of the Ministry of Transport which surveys the passage of civil aircraft through Canadian airspace with its particular radar system. The second system is the Air Defence Command (ADC) of the Canadian Armed Forces which carries out the identification of aircraft in Canadian airspace as part of its sovereignty protection duties and which undertakes the anti-bomber defence role as part of Canada's contribution to NORAD. The existing surveillance system has two drawbacks. The first drawback is that the Ministry of Transport (MOT) and Air Defence Command radar systems, while sharing some information and some installations, are distinct one from the other, MOT having its radar system and ADC using the facilities of the Pinetree Line. The lack of commonality between the two systems may increase if MOT's proposed Joint En-route Terminal Control System (JETS) is placed into operation in the late 1970s because JETS uses completely new equipment and cannot detect non-co-operating aircraft which challenge Canadian sovereignty. As a result, Canada will have two costly radar systems, one for civilian use and another for general airspace surveillance, not a cost-effective arrangement. The second drawback is in the ADC system. In the command structure of NORAD, which is divided into many regions of operational control, only about half of Canadian

22 Major-General N.L. Magnusson, "Surveillance and Control of Canadian Airspace", Canadian Defence Quarterly, vol.3, no.1, Summer 1973, p.10. Only aircraft with transponders emitting signals would be detected. 23 North America is divided into many regions in which there is a central operational commander responsible to CINC NORAD.
airspace is under the operational control of a Canadian commander while other areas of Canadian airspace are included in American NORAD regions where the operational commander is an American. In other words, the ADC system does not have total responsibility for the surveillance of Canadian airspace since it shares that responsibility with the USAF, not the best arrangement for the protection of Canadian sovereignty. Thus, the existing Canadian airspace surveillance system does not provide cost-effective and efficient control of Canadian airspace for the protection of sovereignty.

An obvious way to correct the drawbacks of the existing system would be to have all Canadian airspace under Canadian operational control and to combine the radar resources of MOT and ADC. The latter undertaking would not be difficult because the ADC system already provides more extensive radar coverage than the MOT system (See Appendix D) and has the computer equipment of the Pinetree Line which could be used to control civilian as well as military flights. The combination of MOT and ADC resources would end the present duplication of efforts where the MOT system provides radar coverage for the same areas as the ADC system and would cancel the need to purchase costly computer equipment for the JETS proposal because

24 Colonel J.D. Dickson, "NORAD: Some Historical Perspectives", Canadian Defence Quarterly, vol. 2, no. 4, Spring 1973, p. 22. The disposition of NORAD regions was revised in 1969 in order to place more areas of Canada under Canadian control, but some areas of Canada still remained under American operational control.

the Pinetree Line has essentially the same kind of computer equipment already in use. Indeed, because of the duplication of efforts in the present ADC and MOT systems and because MOT's JETS proposal would reduce the MOT system's usefulness in controlling Canadian airspace due to the inability of JETS equipment to detect unco-operative aircraft challenging Canadian sovereignty, the Canadian government is currently reconsidering the JETS proposal. Once the ADC and MOT systems would be combined, the control of Canadian airspace in its totality could be centralized in the NORAD regional control center at North Bay, Ontario, which already controls half of Canadian airspace, after arrangements had been made with the United States. In fact, the combination of ADC and MOT radar systems and the centralization of control of Canadian airspace in Canada could be done without affecting Canada's responsibilities within the present NORAD system since Canada would still provide radar information to the United States. Therefore, the Canadian government could easily have an efficient airspace control system which could be economical and which would effectively meet the first defence priority, sovereignty protection.

The implementation of a modernized continental air

26 Major-General N.L. Magnusson, "Surveillance and Control of Canadian Airspace", Canadian Defence Quarterly, vol. 3, no. 1, Summer 1973, p. 10-13. General Magnusson is the Commander of Air Defence Command and is the leading advocate of a totally Canadian system for airspace control. This section of the study is based on his article.

defence system as proposed by the American military could make
the efficient combination of the MOT and ADC airspace surveillance
systems more difficult, if not impractical. If AWACS replaces the
Pinetree Line, the differences in equipment between ADC and MOT
would be increased and the sharing of common radar stations
and computer equipment would not be possible. If the Pinetree
Line remains in operation despite AWACS, Canada would find
itself with three radar systems, MOT's, the Pinetree Line and
AWACS. These three systems could perhaps be combined into a
single surveillance system, but this combination could be
complicated and would not remove the duplication of efforts
by AWACS and the Pinetree Line. An added complication would
be the operation of AWACS in Canadian airspace by the United
States. Indeed, the value of a totally Canadian system for
airspace surveillance would be questionable if the United States
was allowed to have as much control over Canadian airspace as
Canada. In short, the implementation of a modernized air defence
system and Canadian participation in that system could possibly
prevent the Canadian government from establishing an airspace
surveillance system which could effectively protect Canadian
sovereignty without significant expenditures. Presumably, the
Canadian government would like to avoid involvement in an air
defence system which was based only on the American military's
perception of the Soviet bomber threat and which could severely limit
Canada's options on the establishment of its own efficient airspace

28 Major-General N.L. Magnusson, p. 11. Radar information could be
provided to the United States just as the latter provides BM EWS
information to Canada through NORAD even though Canada does not
participate actively in it.
surveillance system.

Thus, to recapitulate, the Canadian government has three reasons for avoiding participation in the proposed modernized air defence system: a different perception of the bomber threat than that of the American military, concern for the implications of the new system for Canadian sovereignty, and the availability of an airspace surveillance system which might not be compatible with the American system. However, despite these three reasons, there is no indication that the Canadian government is alerting the American government to its desire to avoid participating in the modernized system. In other words, the Canadian government has apparently proceeded to the second step of its decisionmaking process where, despite objections to the modernization proposal, it has come to the conclusion that it cannot confront the United States with its unwillingness to participate in the modernized system. The Canadian government does not want to take a stand against the modernization proposal and appears to be content to let the United States decide whether or not to implement the modernized air defence system and to what extent Canada will participate in the system. The present Minister of National Defence, James A. Richardson, has stated that on the matter of air defence modernization, Canada,

... cannot make a decision fully independently in this instance. We will be working with the American forces; our personnel are now working with them. We will be waiting to see what they decide in terms of systems, and then working out with them appropriate participation by Canada.
In other words, the Canadian government is letting the United States decide whether or not Canada will participate in the modernized system.

The reticence of the Canadian government to insist on its opposition to Canadian participation in air defence modernization was further demonstrated by the attitude of the Secretary of State for External Affairs concerning Canadian-American defence co-operation in the 1970s. A major 1972 policy statement on Canadian-American relations indicated that,

...the momentum of the Fifties and Sixties toward closely-integrated and structured defence arrangements has abated. This situation could change, of course, as a result of technical innovations such as the introduction of new defence and warning systems, or a return to a more active military confrontation between the super-powers. 30

The policy statement did not say that new integrated continental defence arrangements would occur if new warning systems were implemented in response to increasing antagonism between the super-powers. Rather, it stated that Canada and the United States would undertake new defence arrangements either because of the implementation of a modernized air defence system or because of increased world tensions. In other words, this statement implies that Canada would be willing to participate in air defence modernization whether or not international tensions required such new defence measures. This attitude of the Department of External Affairs may explain why in the five year period between the modernization proposal of DCF No. 1 in November

30 Mitchell Sharp, p. 4.
1967 and June 1973, the PJBD has not been used by Canada to indicate its desire to avoid participation in the modernized air defence system.

Indeed, only at the military level has there been exchanges of views on the modernization proposal between Canada and the United States. However, it is not through the military with its particular interest in the maintenance of active air defences that the Canadian government can effectively indicate to the American government its lack of enthusiasm for Canadian participation in the modernized system. Furthermore, even when it dealt directly with the American government, the Canadian government has failed to use the occasion to voice its opinion on air defence modernization. When the NORAD Agreement was renewed on March 30, 1963 after the ten year period stipulated in the original Agreement of May 12, 1958, the Canadian government obtained the American government's assurance that "...this Agreement will not involve in any way a Canadian commitment to participate in an active ballistic missile defense." However, the Canadian government did not seek similar assurances that Canada would not become involved.

31 "For as long as Canada remains in the business of active air defence and for as long as forward and earmarked deployment for NATO-Europe are official policy, then so long must the need to maintain armed forces remain beyond dispute," C. S. Gray, "Defence Policy and the Military Profession: What are Canada's Soldiers to do?", Canadian Military Professionalism: The Search for Identity (Toronto: Canadian Institute of International Affairs, 1973), p. 77.

32 Quoted from American note, "Renewal of NORAD Agreement", External Affairs, vol. 20, no. 5, May 1968, p. 217. This commitment explains why the ABM debate in the late 1960s is not examined here.
in air defence modernization in either the 1968 or 1973 renewals of the NORAD Agreement. While the NORAD Agreement deals only with the integrated command structure, the modernization of air defences inevitably becomes involved in the consideration of NORAD's renewal because the NORAD system is presently based on the DEW and Pinetree Lines which would be replaced by OTH-B and AWACS. The Canadian government cannot consider whether or not to renew the NORAD Agreement without thinking about the implications of the new system for Canada. Yet, despite the objections to the proposal expressed in the White Paper, the Canadian government has agreed to renew the NORAD Agreement in 1973 without indicating that it did not want to participate in the new system. Instead, the Canadian government has chosen to renew the NORAD Agreement for only two years so that it could be renegotiated when and if the American government finally decides to modernize air defences. As the Secretary of State for External Affairs, Mitchell Sharp, explained it, the Canadian government approached the 1973 renewal of NORAD very cautiously, adding that the Agreement would be renewed only for a short period of time in order to study the usefulness of the

33 It should be understood that this study is not criticizing the government's decision to remain in NORAD as such. But, nothing prevented the Canadian government from insisting that, while it was prepared to remain in NORAD as it presently exists, it would not be willing to participate in the modernization of NORAD, especially when the White Paper stated that anti-bomber defences were not as important as in the past. The only real advantage of the OTH-B and AWACS system over the DEW and Pinetree Lines system is the ability to detect low-flying aircraft. Canadian participation in a new and costly anti-bomber defence system would contradict the government's statement that the bomber threat was no longer important.
"mechanism that has to be established." But surely, the Canadian government must realize that the American government would be antagonized if after spending millions of dollars to develop AWACS, OTH-B and IMI specifically for a modernized continental air defence system, it suddenly faced a refusal of the Canadian government to participate in the new system.

Indeed, Canadian reticence in the early stages of the American government's consideration of the modernization proposal almost inevitably means Canadian participation in the new projects once these are approved by the American government. In fact, the Canadian government has already agreed to participate in the testing of some parts of the proposed new system. The Canadian government, for example, has allowed the testing of OTH-B equipment in the Canadian Arctic by the USAF, with the Defence Research Board co-operating with the Americans in a project called "Polar Cap III". Thus, the Canadian government is not only withholding its objections to the modernization proposals, but also helping the American military develop the different systems of the proposed modernization project. How can we explain the Canadian government's willingness to participate in the modernized air defence system when the Canadian government has publicly stated its desire to avoid

35 See "Announcement by Defence Research Board", Department of National Defence, Information Services, ATN: 071/72, May 1972. See also, "Polar Cap III", Sentinel, (Canadian Forces Magazine), vol. 9, no. 1, January 1973, p. 24-25. It should be noted that some testing of the AWACS radar has also been done in Canadian airspace. See Canadian Aviation, May 1973, p. 55. Such tests require Cabinet approval before they can be carried out.
participation in such a project and when it is still uncertain that the American government will approve the military's proposals and request Canadian participation? If the American government has not yet formally indicated what it expects of Canada, this presumably would be the best time for the Canadian government to alert the American government to its lack of interest in the modernized air defence system, but the Canadian government has apparently not taken the opportunity. Considering the impact of the fear of a confrontation with the United States on the previous cases of Canadian decision-making on continental defence co-operation, it can be assumed that the Canadian government's reticence to object to air defence modernization is due to a continuing fear of a confrontation with the United States.

Indeed, the Canadian government's desire to avoid a confrontation with the United States can be demonstrated by examining the Canadian government's attitude when it agreed to renew the NORAD Agreement in 1968 and 1973. In the justification of Canada's renewal of the Agreement, the Canadian government has stressed on both occasions that renewal was a necessary manifestation of Canadian friendship with the United States. The Secretary of State for External Affairs at the time of the 1968 renewal, Paul Martin, stated that renewal was important since,

To the United States, partnership for the defence of our respective homelands is an important manifestation of the basic friendship between the two countries, which enables us to speak frankly and to differ with the United States in other areas where such vital interests are not at stake. 36
Paul Martin's successor, Mitchell Sharp, shared the same attitude towards NORAD's renewal despite the review of Canadian foreign and defence policies initiated by Prime Minister Trudeau, stating in 1969 that,

"Co-operation in the NORAD partnership illustrates the soundly based friendship between our two countries which enables us to speak to each other frankly and to differ publicly on many important international issues. When two countries, however close their relations, pursue their own independent policies in international affairs, there are bound to be occasions when differences of opinions and differences of interest arise."

Because of the emphasis placed by the government's spokesmen on the need to maintain NORAD in order to have influence on American policies, one observer has stated that,

"...a Canadian contribution may be not so much demanded by the United States as rather desperately required by a Canadian Government which needs to find a niche for itself in continental defence."

But in fact, to this writer, the meaning of the Canadian government's statements was that Canada could not refuse to renew the NORAD agreement because such action would cause a confrontation "which could threaten the multitudinous other forms of mutually beneficial co-operation between the two countries." In other

37 During the Foreign policy review in 1969, Prime Minister Trudeau argued that Canada should concern itself more with continental defence than with NATO. (See B. Thordarson, Trudeau and Foreign Policy, (Toronto: Oxford University Press, 1972), p. 159, 12-75). But, this does not necessarily mean that Trudeau favours modernization.
words, Canadian refusal to renew a particular and perhaps outdated agreement on defence would adversely affect every other facet of Canadian-American relations such as economic exchanges and Canadian-American friendship in general.

NORAD is only an agreement concerning the operation of an integrated air defence command such that the non-renewal of this agreement would only end the integrated command structure, not necessarily indicate Canada's unwillingness to continue co-operation for continental defence. But, the Canadian government anticipated that the United States would view the refusal of Canada to renew NORAD as an unfriendly act, even though the American government did not necessarily indicate that it would view non-renewal in this way. For example, prior to the 1973 renewal of NORAD, a Member of Parliament asked the Minister of National Defence if the United States had threatened retaliation, such as curtailing the Defence Production Sharing Agreement which helped Canadian defence industries to seek American military contracts, if Canada did not renew the Agreement. Mr. Richardson replied that,

...there has been no direct statement of that kind. But it seems to me pretty obvious that if we pulled out of the NORAD agreement, that would be an indication that we were not interested in sharing the defence of North America. It would be unlikely that, in those circumstances, a defence-sharing agreement would continue in its same form. But there has been nothing stated to us. 41

Therefore, even though the United States had not made any threat, the Canadian government feared that confronting the United

States with a refusal to renew NORAD could only cause strained Canadian-American relations.

The Canadian government's apprehension about the implications of a confrontation with the United States on NORAD's renewal inevitably affects the government's consideration of Canadian participation in air defence modernization. If in fact the Canadian government believes that the non-renewal of NORAD would constitute an unfriendly act towards the United States and would indicate Canada's unwillingness to do its share for defence, the government cannot but consider that its refusal to participate in air defence modernization could also be viewed in the same manner by the United States. With this attitude, the Canadian government is unlikely to seek a confrontation with the United States when and if the latter requests Canadian participation in the modernized system. This attitude would explain why the Canadian government has not utilized the renewal of NORAD in 1968 and 1973 to insist on its unwillingness to participate in air defence modernization and has not indicated its objections to the proposal through the RJED. The Canadian government, wary of confrontations or any actions which might affect the stability of Canadian-American relations, hesitates to become involved in the American government's consideration of the military's proposal, even if Canadian participation is an element of the proposed project. Therefore, as the weapons system such as AWACS and IMI near the production stage and as American government approval of the modernization
proposal becomes increasingly probable, it becomes increasingly difficult for the Canadian government to avoid participation in the new system. The American government may abruptly decide not to implement air defence modernization and curtail the development of OTH-B, AWACS and IMI or use them for other purposes. Whatever the real probability of a confrontation, the fact remains that the Canadian government is in the process of accepting to participate in the American project and for all intents and purposes, is letting the American government decide whether or not Canada will become involved in the new air defence system.

Therefore, even though the air defence modernization project has yet to be implemented, it is evident that the Canadian government is adopting the same pattern of decision-making with this project that it had when dealing with the previous three cases. In fact, the only remaining decision-making step on air defence modernization is the negotiation between the Canadian and American governments on just how the new system will be implemented. This step will require the Canadian government to indicate to the American government what manner of participation it prefers and to arrange special agreements concerning the protection of Canadian sovereignty and cost-sharing agreements.

In summary, despite the changes in Canadian political leadership and despite the reduced importance of Canadian

42 For example, AWACS could be used only in its tactical role where it directs fighter aircraft in a battle zone. In this way, AWACS could be used with NATO forces in Europe.
participation in continental defence due to changing technology, the Canadian government has maintained the same approach in dealing with American proposals for defence projects involving Canadian participation in the 1970s as it had in the 1940s and 1950s. Just as in the previous cases under study, the Canadian government is again anticipating the possibility of a confrontation with the United States even though the American government has not yet decided to implement the air defence modernization proposals and therefore has in no way threatened retaliation for Canadian refusal to participate. Because of its consistent anticipation of confrontation, the Canadian government has not formally indicated its position on the project to the American government, preferring to state its lack of enthusiasm for the project through a white paper instead of taking the initiative and insisting through the NORAD renewal and PJBD meetings that it wanted to avoid participation in the new system. At a time when the retention of anti-bomber defences is questionable and their modernization even more so, the Canadian government could dispute the arguments of the military on both strategic and technical grounds and refuse any involvement in a project of doubtful value. However, the Canadian government prefers to offer only weak opposition to the planned implementation of the new project with the hope that diplomatic agreements and token Canadian operation of parts of the project will protect Canadian sovereignty after implementation. Thus, ironically, while seeking to avoid the risk of any confrontation
with the United States by agreeing to involvement in joint projects and then imposing strict guidelines to protect its sovereignty, the Canadian government has lost the key component of sovereignty—the ability to independently formulate a coherent set of national needs and objectives and to present effectively its point of view to the United States.
CHAPTER FIVE: Conclusion
The testing of our three step model of Canadian decisionmaking concerning Canadian participation in continental defence projects has demonstrated that the Canadian government followed a consistent pattern of decisionmaking based on the avoidance of a confrontation with the United States despite changing strategic conditions. In the immediate post-war period, the possibility of a large scale attack against the continent was remote because of the difficulties involved. As a result, the Canadian government was not as concerned as the United States about the security of the Canadian Arctic. However, faced with American requests for the fortification of the Canadian Arctic, the Canadian government believed that it was better to comply with American requests than to confront the United States with an outright refusal to participate in the project. With the Soviet Union's development of strategic bombers and atomic bombs, the threat to continental security became more serious. But in its consideration of whether or not to participate in the DEW Line and NORAD, two projects designed specifically to deal with the new threat, the Canadian government was still more preoccupied with the avoidance of a confrontation with the United States than with the implementation of effective defence projects. The Canadian government realized the deficiencies of these projects and feared their implications for Canadian sovereignty. Nevertheless, the Canadian government undertook the same decisionmaking pattern as in the immediate post-war case, putting its objections to the projects aside, agreeing to
participate and then trying to modify the implementation of the project. Finally, in the third period under study, the development of the ICBM has greatly increased the ability of the Soviet Union to attack the North American continent. At the same time however, the importance of Canadian participation in continental defence has diminished such that the Canadian government could have been expected to welcome the opportunity to avoid participating in any further costly continental defence projects. Instead, the Canadian government has again followed the same decision-making approach as in the past and has indicated its willingness to participate in a defence project of secondary importance, if only to avoid a confrontation with the United States. In short, if this writer may be permitted to draw normative conclusions from his analytical study, in almost thirty years of dealing with the United States on matters of joint defence projects, the Canadian government has retained exactly the same decision-making process without considering the changing circumstances.

It is understandable that a middle power such as Canada would be concerned about a confrontation with a state not only more powerful than itself, but with whom it is interlinked by many functional ties in the economic, cultural and military spheres. The problem is that the Canadian government still accepts to modify its independent views and comply with American proposals in the 1970s despite the experience of previous cases, the changes in Canadian political leadership,
the different strategic conditions and the secondary importance of the air defence modernization project. For example, the experience of the NORAD case could have cautioned the Canadian government against letting the Canadian military become too involved with the American military in the preparation of a joint defence project proposal. In the NORAD case, the Canadian military consulted with the American military to arrive at mutual agreement on the integrated command proposal even though the Canadian government was less than enthusiastic about a peacetime integrated command. The Canadian government could have indicated to the military that an integrated command was out of the question. But instead, the government let the military prepare an extensive proposal with American support such that the government was later faced with a proposal it considered necessary to approve in order to avoid a confrontation. The same situation is developing today with the air defence modernization proposal where the Canadian military is being allowed to continue studying the implementation of the project even though the government has objections to it. As a result, the Canadian military is preparing all its plans on the assumption that the project will be implemented while the United States gets the impression that Canada will participate in the project. Thus in the end, the Canadian government will likely be faced with a proposal it does not necessarily agree with but which has reached such an advanced stage that it is difficult to stop. The government argues that it cannot make a decision on air defence modernization
until the American government decides to put the different weapons systems into production and requests Canadian participation, or in other words, a decision cannot be made until it has to be made. But, by the time the American government actually requests Canadian participation, the choices available to the Canadian government will be severely limited. It can either participate in the project or antagonize the American government by refusing to participate. Thus, if the Canadian government really wants to keep its options open, it should present its views to the American government during the planning stages and before the weapons systems are placed into production.

The Canadian government's hesitancy to be more forceful in its criticism of a proposed project results from its anticipation of American government support for that specific project and antagonism for Canada if it criticized the project. In the four cases, the Canadian government decided it was obliged to participate in a project before the American government formally requested Canadian participation. Certainly, in order to have an intelligent decisionmaking process, the Canadian government must attempt to foresee both the implications of proposed projects and the attitude of the American government towards their planned implementation. However, the Canadian government tended to misinterpret American government expectations concerning Canadian participation in the projects such that it considered a confrontation with the United States more probable than it actually was.

1 Interview
As a result, the Canadian government believed that there was little use in criticizing the project proposals or trying to influence the American government's decision such that it puts aside its objections to the project and accepted, as inevitable, its participation in the project even before the American government decided to implement it. In the air defence modernization case for example, the Canadian government is apparently ready to participate even though the American government has not decided to implement the system and even though the project could be abandoned on short notice. With all the uncertainty surrounding the modernization project, the Canadian government would presumably be in a good position to criticize the project and try to convince the American government that it was not necessary. Instead, the Canadian government is acting as if the implementation of the project were assured and is relying on tough negotiations after implementation to obtain guarantees for the protection of Canadian sovereignty and favourable cost-sharing agreements from the United States. This passive approach of the Canadian government results from the belief that a refusal to participate in a new defence project or to continue an existing project would be viewed as an unfriendly act by the United States. If the Canadian government clearly explained its motives, its actions would not necessarily be construed as unfriendly acts. But, the Canadian government prefers to maintain its consistent decision-making pattern of complying with American proposals and influencing the project's implementation.
in the belief that this is its only "alternative".

In short, since taking on the sovereign responsibility for its external relations, the Canadian government has adopted a decisionmaking pattern on continental defence co-operation which, in an attempt to save Canada from the implications of a confrontation with the United States, has in fact failed to protect Canadian sovereignty in the sense that, by default, the United States unilaterally determines whether or not Canada will participate in a project it may not favour. The Canadian government should realize that while the avoidance of a confrontation is a realistic goal, simple submission to any major proposal initiated by the United States is not the only way to achieve this goal. It is just as reasonable to presume that by taking action when new projects are in the formative stages, the Canadian government could avoid a situation where its options are limited and where the possibility of a confrontation appears to be greater. By taking a definite stand on a project as soon as its implications become obvious and clearly indicating its views to the United States before the latter requests Canadian participation, the Canadian government could be in a better position not only to avoid a confrontation with the United States, but also avoid participating in a project it does not like. Indeed, through frank and constructive criticism, the Canadian government could influence the American government to cancel the project or to modify it so that Canadian participation would not be necessary, thus removing the possibility of confrontation.
APPENDIX A: Radar Systems in Canadian Territory

Pinetree Line radar coverage.

Mid-Canada Line (phased out in 1965).

Distant Early Warning (DEW) Line Stations.

Over-the-Horizon-Backscatter (OTH-B) Testing Sites.
APPENDIX B: Operation of Over-the-Horizon-Backscatter (OTH-B)

EXTENDING COVERAGE OUTWARDS

OTH BACK SCATTER

DETECTING AIRCRAFT

AWACS INTERCEPTOR RANGE BASES

APPENDIX C: Airborne Warning and Control System (AWACS) revolving radar

Tracking Displays
For AWACS Shown

Target tracking displays (right) on a USAF/Boeing E-3A airborne warning and control system (AWACS) airplane will provide map backgrounds and various kinds of overlays, such as the polar and rectangular grids seen here, to help the AWACS mission crew assess threats and direct friendly forces. These Boeing-built consoles are installed in the AWACS testbed airplane (below) that houses the Westinghouse brassboard radar. Operational consoles are being developed by Hazeltine Corp. Westinghouse has received a contract worth about $70 million from Boeing for development of the pre-production of the surveillance radar. In addition to the radar and IFF antennas located in the radomes shown below, there will be a high-power UHF antenna for use with a digital data link.
APPENDIX D: Theoretical Combination of Ministry of Transport and Air Defence Command radar systems

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Mr. A.P. Sherwood, Secretary, Canadian Section, Permanent Joint Board on Defence; Director, North American Section, Defence Relations Division, Bureau of Defence and Arms Control, Department of External Affairs.

Colonel D.P. Hall, Director, Continental Policy, Department of National Defence.
résumé

Canada and Continental Defence Co-operation:
From Ogdensburg to AWACS

Michel Rossignol
This study examines the decisionmaking process of the Canadian government concerning Canadian participation in continental defence projects, i.e., military activities undertaken jointly by Canada and the United States in Canadian territory for the defence of the North American continent. Between 1956 and 1973, the United States proposed a series of continental defence projects such as radar lines and integrated commands to deal with external threats to continental security. With each new proposal, the Canadian government had to decide whether or not to participate in the project and whether Canada would participate actively, by undertaking the project itself, or passively, by allowing the United States to undertake the project in Canadian territory. Memoirs and government documents have shown that the Canadian government often disagreed with American threat perceptions and was concerned with the implications of the projects for Canadian sovereignty such that the government had specific reasons for avoiding participation in the various projects. Nevertheless, the Canadian government still agreed to participate in every major defence project proposed by the United States. This study attempts to determine why the Canadian government accepted American proposals despite objections to them.

The hypothesis of this study is that when the Canadian government considered whether or not to participate in the proposed project, its main preoccupation was the avoidance of a confrontation with the United States. The Canadian government,
conscious of the great disparities in power between the United States and Canada, believed that it could not confront the United States with a refusal to participate in the proposed defence project without risking some form of retaliation. The Canadian government was particularly concerned with the possibility that the United States would ignore Canada's refusal and undertake the project in Canadian territory without permission, thus challenging Canadian sovereignty. As a result of this anxiety, the government always agreed with the basic American proposal for Canadian participation with the hope that it could influence the implementation of the project in order to minimize its share of the costs and protect Canadian sovereignty as much as possible. In all the cases, the Canadian government maintained the same pattern of response such that a three step decision-making model can be established. In the first step, the Canadian government examines the value of the proposed project and tries to determine American expectations concerning Canadian participation. In the second step, the Canadian government anticipates that the United States will accept only Canada's agreement to participate and resigns itself to participation in a project in order to avoid a confrontation, even though the American government has not made any threats. In the third step, the government chooses the manner in which it wants to participate and negotiates firmly with the United States in order to obtain favourable cost-sharing agreements and to protect Canadian sovereignty. In short, the Canadian government followed a decision-making pattern which it believed would remove the danger of a confrontation with the
United States while permitting it to influence the project's implementation to its liking.

The three step decisionmaking model is used in the examination of four cases where the Canadian government was faced with American proposals for a major defence project. The first case deals with the proposal for the fortification of the Canadian North and Canadian acceptance of the American perception of the Soviet threat to continental security in the period immediately after the Second World War. The examination of this case shows that the Canadian government did not totally agree with the American perception of the Soviet threat and did not believe that a Soviet attack through the Canadian North was possible. But, the government considered it necessary to accept the basic proposal in order to avoid a confrontation with the United States. The second and third cases deal with projects proposed in response to the Soviet Union's acquisition of strategic bombers and nuclear weapons in the period between 1947 and 1958. The second case involves the construction of a Distant Early Warning (DEW) radar line in the Canadian Arctic. The examination of this case shows that the Canadian government had doubts about the radar line's value and was concerned about the line's costs and its effects on Canadian sovereignty. Nevertheless, the Canadian government agreed to allow the radar line's construction in Canadian territory because of its fear of a confrontation. The fourth case, the establishment of an integrated air defence command known as NORAD, again shows the Canadian government lacking enthusiasm for a proposed project but accepting to participate in
it in order to avoid a confrontation. The fourth case is a contemporary event where the three step decisionmaking process has not reached the final step. This case involves the American proposal for the modernization of continental air defences in the late 1970s and is examined in order to show that, despite the changes in strategic conditions and in Canadian political leadership, the Canadian government has adopted the same decisionmaking pattern as in the previous three cases.

The conclusion of this study is that the Canadian government has consistently based its decisionmaking process concerning Canadian participation in continental defence projects on the avoidance of a confrontation with the United States despite different conditions. Between 1936 and 1973, the nature and the importance of proposed projects and the expectations of the United States concerning Canadian participation in those projects changed substantially. Nevertheless, the Canadian government kept the same decisionmaking approach such that it misinterpreted American expectations and hesitated to criticize or suggest modifications to a project until it believed that the danger of a confrontation had passed. In short, this study shows that the Canadian government was too concerned about the possibility of a confrontation with the United States such that it followed a set pattern of decisionmaking too rigidly and often limited the options opened to it unnecessarily.